

FORM PTO-1619A

Expires 06/30/99  
OMB 0651-0027

01-13-1999



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## RECORDATION FORM COVER SHEET

## PATENTS ONLY

U.S. Department of Commerce  
Patent and Trademark Office

PATENT

NED

1-12-99

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

## Submission Type

☒ New  
☐ Resubmission (Non-Recordation)Document ID# ☐ Correction of PTO ErrorReel #  Frame # ☐ Corrective DocumentReel #  Frame # 

## Conveyance Type

☐ Assignment ☒ Security Agreement☐ License ☐ Change of Name☐ Merger☐ Other 

U.S. Government

(For Use ONLY by U.S. Government Agencies)

☐ Departmental File☐ Secret File

## Conveying Party(ies)

☐ Mark if additional names of conveying parties attached

Name (line 1) PC-TEL, INC.

Execution Date  
Month Day Year  
12281998

Name (line 2) a corporation of the State of Delaware

## Second Party

Name (line 1)

Execution Date  
Month Day Year

Name (line 2)

## Receiving Party

☐ Mark if additional names of receiving parties attached

Name (line 1) PFF Bank &amp; Trust

Name (line 2)

Address (line 1) 9467 Milliken Avenue

Address (line 2) Post Office Box 2729

Address (line 3) Rancho Cucamonga

California

91729-2729

City

State/Country

Zip Code

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached (Designation must be a separate document from Assignment.)

## Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

01/12/1999 TTOM11 00000106 5787305

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REEL: 009889 FRAME: 0105

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**Correspondent Name and Address**

Area Code and Telephone Number (310) 451-0647

Name Daniel M. Cislo, Esq.

Address (line 1) Cislo & Thomas, LLP

Address (line 2) 233 Wilshire Boulevard, Suite 900

Address (line 3) Santa Monica, California 90401-1211

Address (line 4)

**Pages**

Enter the total number of pages of the attached conveyance document including any attachments.

# 11

**Application Number(s) or Patent Number(s)**

☒ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

**Patent Application Number(s)**

**Patent Number(s)**


5787305	5486823	5317594
5765021	5465273	5291520
5721830	5394440	5265151

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

**Patent Cooperation Treaty (PCT)**

Enter PCT application number  
only if a U.S. Application Number  
has not been assigned.

PCT		PCT		PCT	
PCT		PCT		PCT	

**Number of Properties**

Enter the total number of properties involved.

# 28

**Fee Amount**

Fee Amount for Properties Listed (37 CFR 3.41): \$ 1,120.00

Method of Payment:  
Deposit Account

Enclosed ☒ Deposit Account ☐

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

# 03-2030

Authorization to charge 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.

Daniel M. Cislo, Esq.

Name of Person Signing

Signature

Date

RECORDATION FORM COVER SHEET  
CONTINUATION  
PATENTS ONLY

U.S. Department of Commerce  
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**PATENT**

**Conveying Party(ies)**

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Execution Date  
Month Day Year

Name (line 1)

Name (line 2)

Name (line 1)

Name (line 2)

Name (line 1)

Name (line 2)

Execution Date  
Month Day Year

Execution Date  
Month Day Year

**Receiving Party(ies)**

☐ Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Name (line 1)

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**Application Number(s) or Patent Number(s)**

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**Patent Application Number(s)**


**Patent Number(s)**

5260971	4921534	4827431
5157651	4891823	4817147
5146472	4856031	4811360
5133412	4845735	4809300
5048056	4841561	4694450

RECORDATION FORM COVER SHEET  
CONTINUATION  
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**PATENT**

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Month Day Year

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Month Day Year

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Name (line 2)

Execution Date  
Month Day Year

Name (line 1)

Name (line 2)

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Name (line 2)

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Address (line 3)

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Zip Code

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**Application Number(s) or Patent Number(s)**

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Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

**Patent Application Number(s)**

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**Patent Number(s)**

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# MEMORANDUM OF SECURITY AGREEMENT IN PATENTS AND LICENSES

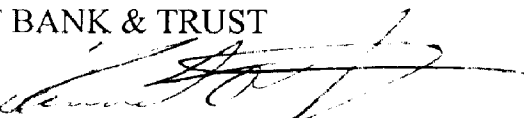
PC-Tel, Inc., a Delaware corporation, whose address is 70 Rio Robles, San Jose, California 95134 ("Debtor"), does hereby grant to PFF Bank & Trust, whose address is 9467 Milliken Avenue, Post Office Box 2729 Rancho Cucamonga, California 91729-2729 ("Creditor"), a security interest in and to all of Debtor's right, title and interest in and to (i) the patents which are identified on Schedule A attached hereto and herein incorporated by this reference (the "Patents"), together with any and all counterpart patents in the United States and any and all improvement patents, reissues, reexaminations, continuations, continuations-in-part and divisions respecting the Patents, (ii) the patent applications which are identified on Schedule C attached hereto and herein incorporated by this reference, together with any and all patents issued with respect thereto, (iii) all actions for infringement concerning the foregoing, and (iv) the licenses identified on Schedule B are attached hereto and herein incorporated by this reference (the "Licenses").

The terms and conditions of the security interest granted hereby are contained in that certain Security Agreement (the "Agreement") dated as of December 28, 1989, between Debtor and Creditor as security for Debtor's performance of Debtor's obligations as set forth in the agreement. Nothing contained in this Memorandum of Security Interest shall be construed as a present assignment of the Patents, patent applications or Licenses nor as limiting any interest which Creditor may have in any other collateral described in the Agreement or otherwise.

IN WITNESS WHEREOF the undersigned have hereunto set their hands this 28th day of December, 1998.


"Creditor"

PFF BANK & TRUST

By:   
Name: Kenneth C. Lientz  
Title: Vice President

"Debtor"

PC-TEL, INC.

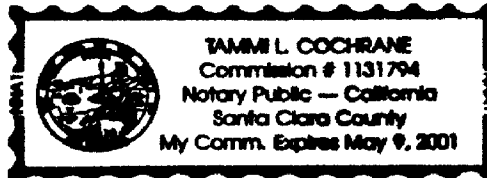
By:   
Name: PETER CHEN  
Title: PRESIDENT & CEO

State of California )  
 ) SS.  
County of Santa Clara )

On December 29, 1999, before me, Tammi L. Cochrane,  
a notary public in and for said State, personally appeared Peter Chern,  
personally known to me (or proved to me on the basis of satisfactory evidence) 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.

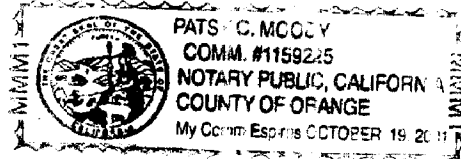
Tammi L. Cochrane



State of California )  
 ) SS.  
County of San Bernardino )

On December 30, 1998, before me, Patsy C. McCoy,  
a notary public in and for said State, personally appeared Redmeh O. Wenzel,  
personally known to me (or proved to me on the basis of satisfactory evidence) 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.



SCHEDULE A  
UNITED STATES PATENTS

1. United States Patent D 5,787,305 issued on July 28, 1998, for "Host signal processing modem using a software simulation of a UART." The inventor is Peter C. Chen. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.  
15 P.C.
2. United States Patent D 5,765,021 issued on June 9, 1998, for "Computer system having second program for transferring data between second port connected to a first port and the software portion of a modem." The inventors are Tseng Jan Hsu and Wen-Liang Hsu. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.  
15 P.C.
3. United States Patent D 5,721,830 issued on February 24, 1998, for "Host signal processing communication system that compensates for missed execution of signal maintenance procedure." The inventors are Han C. Yeh and Peter C. Chen. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.  
15 P.C.
4. United States Patent D 5,486, 825 issued on January 23, 1996, for "Convolutional encoders for modems which implement the 'Cole code'." The inventor is Paul D. Cole. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
5. United States Patent D 5,465,273 issued on January 16, 1996, for "Ring laser gyroscope enhanced resolution system." The inventors are John G. Mark, Daniel A. Tazartes, Robert E. Ebner, Neal J. Dahlen, and Nibir K. Datta. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
6. United States Patent D 5,394,440 issued on February 28, 1995, for "High speed modem systems incorporating distribution preserving Tomlinson encoding and decoding for secondary channels." The inventors are Yuri Goldstein and Paul D. Cole. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
7. United States Patent D 5,317,594 issued on May 31, 1994, for "Systems for and method of identifying V.fast modem within existing automatic interworking procedure standards." The inventor is Yuri Goldstein. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
8. United States Patent D 5,291,520 issued on March 1, 1994, for "Methods and apparatus employing distribution preserving Tomlinson precoding in transmission of digital data signals." The inventor is John G. Mark. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.



9. United States Patent D 5,265,151 issued on November 23, 1993, for "Method of improving modem performance by controlling transmitted power of modem, and modem implementing the same." The inventor is Yuri Goldstein. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
10. United States Patent D 5,260,971 issued on November 9, 1993, for "Apparatus and methods employing distribution preserving Tomlinson precoding in transmission of digital data signals." The inventor is Paul D. Cole. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
11. United States Patent D 5,157,651 issued on October 20, 1992, for "Apparatus and method for determining line rates." The inventors are Emil Ghelberg, Patrick Evans, Seng Lee, and Don Liyanage. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
12. United States Patent D 5,146,472 issued on September 8, 1992, for "Method for imbedding information in modem handshake procedure and modems incorporating the same." The inventor is Edward Hallman. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
13. United States Patent D 5,113,412 issued on May 12, 1992, for "Method and apparatus for mapping an eight dimensional constellation of a convolutionally coded communication system." The inventor is Yuri Goldstein. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
14. United States Patent D 5,048,056 issued on September 10, 1991, for "Method and apparatus for mapping an eight dimensional constellation of a convolutionally coded communication system." The inventor is Yuri Goldstein. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
15. United States Patent D 4,922,534 issued on May 1, 1990, for "Intelligent synchronous modem and communication system incorporating the same." The inventors are Andrew M. Gorniak and Michael Fargano. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
16. United States Patent D 4,891,823 issued on January 2, 1990, for "Channel encoder for generating rotationally invariant trellis codes." The inventor is Paul D. Cole. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
17. United States Patent D 4,856,031 issued on August 8, 1989, for "Adaptive multiharmonic phase jitter compensation." The inventor is Yuri Goldstein. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.

18. United States Patent D 4,845,735 issued on July 4, 1989, for "Non-interfering method for measuring propagation delay of telecommunications network and apparatus for accomplishing same." The inventors are Nicholas W. Payne and Kiran Mistry. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
19. United States Patent D 4,841,561 issued on June 20, 1989, for "Operating default group selectable data communication equipment." The inventor is Gregory P. Hill. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
20. United States Patent D 4,827,431 issued on May 2, 1989, for "Methods and systems for the simultaneous quantitative measurement of phase and amplitude jitter impairments and signal to noise ratio in a qam data communication channel." The inventor is Yuri Goldstein. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
21. United States Patent D 4,817,147 issued on March 28, 1989, for "Intelligent synchronous modem and communication system incorporating the same." The inventors are Andrew M. Gorniak and Michael Margano. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
22. United States Patent D 4,811,360 issued on March 7, 1989, for "Apparatus and method for adaptively optimizing equalization delay of data communication equipment." The inventor is William J. Potter. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
23. United States Patent D 4,809,300 issued on February 28, 1989, for "Branch metric algorithm for eight-dimensional signal constellation." The inventors are Yuri Goldstein, William Abdelsayed, and Paul Cole. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
24. United States Patent D 4,694,450 issued on September 15, 1987, for "Method and apparatus for adaptive receiver squelch echo control." The inventor is Hans P. Staab. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
25. United States Patent D 4,667,180 issued on May 19, 1987, for "Continuous time domain analog-digital converter." The inventor is Jeffrey I. Robinson. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.
26. United States Patent D 4,471,489 issued on September 11, 1984, for "Automatic answer/originate mode selection in modem." The inventors are Kenneth Konetski and David Moon. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.

27. United States Patent D 4,394,767 issued on July 19, 1983, for "Data transmission over long distance circuits." The inventor is Martin N. Shum. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.

28. United States Patent D 4,290,139 issued on September 15, 1981, for "Synchronization of data communication receiver with a received signal." The inventor is Dale M. Walsh. The owner of the patent was General DataComm, Inc., who assigned the patent to PC-Tel, Inc.

# SCHEDULE B

## LICENSES

<u>Type of Agreement</u>	<u>Date</u>	<u>Parties</u>	<u>Recited Patents</u>
1. Joint Venture Agreement	September 24, 1996	Diamond Multi-Media Systems and General DataComm, Inc. ("GDC")	N/A
2. Technical Assistance Agreement	March 5, 1996	Iowa as Licensee, GDC as Licensor	N/A
3. Joint Development Agreement	June 27, 1994	Sierra Semiconductor, GDC as Licensor and Licensee	N/A
4. Technical Assistance Agreement	February 15, 1996	Clif Technology, Inc. and GDC as Licensee and Licensor	N/A
5. Technology License Agreement	May 29, 1997	Olicom/Lasat	N/A
6. V.34N56K Patent and Knowhow Cross License	June 9, 1997	U.S. Robotics and GDC as Licensor and Licensee	N/A

7. Patent License Agreement	March 25, 1991	British Telecom as Licensor and GDC as Licensee	N/A.
8. CEM Program License Agreement	April 19, 1996	Telenetworks as Licensor and GDC as Licensee	N/A
9. QADM Technology License Agreement	May 22, 1996	AT&T Paradyne as Licensor and GDC as Licensee	N/A
10. DSL Technology License Agreement	May 21, 1996	AT&T Paradyne as Licensor and GDC as Licensee	N/A
11. V.34 Generally Unrestricted Patent License Agreement	September 24, 1997	Texas Instruments as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273
12. V.34 Generally Unrestricted Patent License Agreement	August 22, 1996	Rockwell International Corporation as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273
13. V.34 Generally Unrestricted Patent License Agreement	October 31, 1996	Cirrus Logic as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273
14. V.34 Generally Unrestricted	June 13, 1996	Chromatic, Inc. as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273

15. V.34 Generally Unrestricted Patent License Agreement	July 21, 1998	PC-Tel, Inc. as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273
16. V.34 Generally Unrestricted Patent License Agreement	undated	NEC as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273
17. V.34 Restricted Patent License Agreement	January 13, 1997	Phylon Communications as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273
18. V.34 Restricted Patent License Agreement	February 10, 1997	Logicode Technology, Inc. as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273
19. V.34 Restricted Patent License Agreement	July 8, 1996	Intel as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273
20. V.34 Restricted Patent License Agreement	May 30, 1996	Telindus as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273
21. V.34 Restricted Patent License Agreement	July 15, 1996	Zyxel Communications Corp. as Licensee and GDC as Licensor	5,048,056 5,265,151 5,291,520 5,465,273

# SCHEDULE C

“Not Applicable”