PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	SECURITY AGREEMENT	

CONVEYING PARTY DATA

Name	Execution Date
Brooktree Broadband Holding, Inc.	11/13/2006

RECEIVING PARTY DATA

Name:	The Bank of New York Trust Company, N.A.		
Street Address:	227 West Monroe, Suite 2800		
Internal Address:	Attention: Corporate Trust Administration		
City:	Chicago		
State/Country:	ILLINOIS		
Postal Code:	60606		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	11849618

CORRESPONDENCE DATA

Fax Number: (866)413-4994

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

Phone: (732) 345-6603

Email: patricia.dailey@conexant.com

Correspondent Name: Patricia Dailey Address Line 1: 100 Schulz Drive Address Line 2: Conexant Systems, Inc.

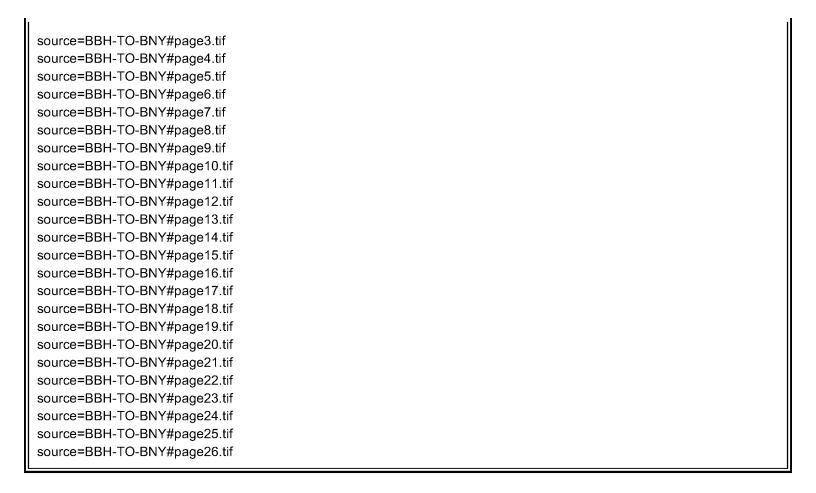
Address Line 4: Red Bank, NEW JERSEY 07701

ATTORNEY DOCKET NUMBER:	GV256-CON
NAME OF SUBMITTER:	Patricia Dailey

Total Attachments: 26

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PATENT 500546067 REEL: 020980 FRAME: 0231



GRANT OF SECURITY INTEREST IN PATENT RIGHTS

This GRANT OF SECURITY INTEREST IN PATENT RIGHTS ("Agreement"), effective as of November 13, 2006 is made by BROOKTREE BROADBAND HOLDING, INC., a Delaware corporation, located at 2711 Centerville Road, Suite 400, Wilmington, Delaware, 19808 (the "Company"), in favor of THE BANK OF NEW YORK TRUST COMPANY, N.A., a national banking association, as Collateral Agent (the "Collateral Agent") for the holders of the notes (the "Holders") issued pursuant to the Indenture, dated as of November 13, 2006, (as amended, supplemented or otherwise modified from time to time, the "Indenture"), among the Company, the subsidiary guarantors parties thereto and The Bank of New York Trust Company, N.A., as trustee (the "Trustee").

WITNESSETH:

WHEREAS, pursuant to the Indenture, the Company intends to issue to the Holders its Floating Rate Senior Secured Notes due 2010;

WHEREAS, in connection with the Indenture, the Company and certain other subsidiaries of the Company have executed and delivered the Security Agreement, dated as of November 13, 2006 (as amended, supplemented or otherwise modified from time to time, the "Security Agreement");

WHEREAS, pursuant to the Security Agreement, the Company and certain other subsidiaries pledged and granted to the Collateral Agent for the ratable benefit of the Collateral Agent and the Holders, a security interest in all Intellectual Property, including the Patents; and

WHEREAS, the Company has duly authorized the execution, delivery and performance of this Agreement;

NOW THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, and in order to guarantee the obligations of the Company with respect to the Notes and the Indenture, the Company agrees, for the benefit of the Collateral Agent and the Holders, as follows:

SECTION 1. <u>Definitions</u>. Unless otherwise defined herein or the context otherwise requires, terms used in this Agreement, including its preamble and recitals, have the meanings provided or provided by reference in the Indenture and in the Security Agreement.

SECTION 2. Grant of Security Interest. The Company hereby pledges and grants a continuing security interest in, and a right of setoff against, and agrees to assign, transfer and convey, upon written demand delivered to the Company upon the occurrence and during the continuance of an Event of Default without requiring further action by either party and to be effective upon such demand, all of the Company's right, title and interest in, to and under the Patents and Patent Licenses (including, without limitation, those items listed on Schedule A

hereto) (collectively, the "<u>Collateral</u>"), to the Collateral Agent for the benefit of the Collateral Agent and the Holders to secure payment, performance and observance of the Obligations.

SECTION 3. <u>Purpose</u>. This Agreement has been executed and delivered by the Company for the purpose of recording the grant of security interest herein with the United States Patent and Trademark Office. The security interest granted pursuant to Section 2 hereof has been granted, and the agreement to assign, transfer and convey under Section 2 hereof has been entered into, in each case, in connection with the Security Agreement, and such grant and agreement to assign, transfer and convey are expressly subject to the terms and conditions of the Security Agreement. The Security Agreement (and all rights and remedies thereunder) shall remain in full force and effect in accordance with its terms.

SECTION 4. <u>Acknowledgment</u>. The Company does hereby further acknowledge and affirm that the rights and remedies of the Collateral Agent and the Holders with respect to the security interest in the Collateral granted hereby are more fully set forth in the Indenture and the Security Agreement, the terms and provisions of which (including the remedies provided for therein) are incorporated by reference herein as if fully set forth herein. In the event of any conflict between the terms of this Agreement and the terms of the Security Agreement, the terms of the Security Agreement shall govern.

SECTION 5. <u>Counterparts</u>. This Agreement may be executed in counterparts, each of which will be deemed an original, but all of which together constitute one and the same original.

SECTION 6. <u>Termination</u>. Upon the occurrence of any of the events specified in Section 11.8 (a) of the Indenture, the Collateral Agent shall promptly cause to be released the security interest in the Patents granted pursuant to this Agreement in accordance with Section 11.14 of the Security Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the day and year written below.

BROOKTREE BROADBAND HOLDING, INC.

By: Jasmina T. Brulenjek
Name: Jasmina T. Boulanger
Title: VICE PRESIDENT & SECRETARY

Date: NOVEMBER 20, 2006

THE BANK OF NEW YORK TRUST COMPANY, N.A. as Collateral Agent for the Holders

By:______Name:
Title:
Date:

PATENT

REEL: 020980 FRAME: 0235

County of Asset 1	CALIFORNIA ALL-PURPOSE ERTIFICATE OF ACKNOWLEDGMENT
on November 22, 2006 before me,	(here insert name and title of the officer) Boulanger
personally known to me (or proved to me on the basis of name(s) is/are subscribed to the within instrument and act same in his/her/their authorized capacity(ies), and that by person(s), or the entity upon behalf of which the person(s) a	knowledged to me that he /she/ they executed the his/her/th eir signature(s) on the instrument the
WITNESS my hand and official seal.	TERRI A. APRATI Commission # 1676415 Notary Public - Collifornia Orange County My Comm. Expires Jun 17, 2010
Signature Cr. Capital OPTIONAL INFOR	(Seal)
Although the information in this section is not required by law, it co acknowledgment to an unauthorized document and may prove us	ould prevent fraudulent removal and reattachment of this eful to persons relying on the attached document.
Description of Attached Document	Additional Information
The preceding Certificate of Acknowledgment is attached to a do	Decument Method of Signer Identification Personally known to me
titled/for the purpose of	Proved to me on the basis of satisfactory evidence: form(s) of identification or credible witness(es) Identification is detailed in notary journal on:
containing pages, and dated	
The signer(s) capacity or authority is/are as:	Notary contact:
Individual(s)	Other
Attorney-in-Fact	Additional Signer(s) Signer(s) Thumbprint(s)
Corporate Officer(s)	
☐ Guardian/Conservator ☐ Partner - Limited/General ☐ Trustee(s) ☐ Other:	
representing:	

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3

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the day and year written below.

BROOKTREE BROADBAND HOLDING, INC.

By:
Name:
Title:
Date:

THE BANK OF NEW YORK TRUST COMPANY, N.A. as Collateral Agent for the Holders

Name: Janice Ott Rotunno

Title: Vice President

Date: November 13, 2006

REEL: 020980 FRAME: 0237

ACKNOWLEDGMENT OF COLLATERAL AGENT

STATE OF ILLINOIS)) ss COUNTY OF

COOK)

On the 13th day of November, 2006, before me personally came Janice Ott Rotunno, who is personally known to me to be the Vice President of THE BANK OF NEW YORK TRUST COMPANY, N.A., a national banking association; who, being duly swom, did depose and say that she/he is the Vice President in such association, the association described in -and which executed the foregoing instrument; that she/he executed and delivered said instrument pursuant to authority given by the Vice President of such association; and that she/he acknowledged said instrument to be the free act and deed of said association.

Notary,

"OFFICIAL SEAL"

Julie Braun Notary Public, State of Illinois

ty Commission Expires 6/23/10

11/23/2006 10:11 AM

SCHEDULE A

United States Patent Applications:

Application	Filed	Application
Number	Date	Title
09/809,114	03/15/01	System and Method for Crosstalk Cancelation Using Fractional Sampling
10/021,199	10/30/01	System, Apparatus, and Method for ATM Header Compression for DSL Links
10/786,670	02/25/04	System and Method for Implementing a Delta-Sigma Modulator Integrity Supervisor
10/786,669	02/25/04	System and Method for Implementing a Delta-Sigma Modulator Integrity Supervisor
10/316,155	12/10/02	System and Method for Reducing Noise Induced by Digital Subscriber Line (DSL) Systems into Services that are Concurrently Deployed on a Communication Line
10/316,081	12/10/02	System and Method for Improving Data Transmission
10/408,615	04/07/03	System and method for generating a clock signal in a communication system
10/120,941	04/10/02	System and Method for Decreasing Cross-Talk Effects in Time- Domain-Modulation (TDM) Digital Subscriber Line (DSL) Systems
10/094,931	03/11/02	Transfer of Data of Various Data Types
10/138,365	05/03/02	System and Method for Reducing Power Consumption by Spectral Shaping of Signals
10/211,820	08/06/02	System and Method for Partitioning a DSLAM Network
10/063,384	04/17/02	A System for Switching ATM Cells

NY2 - 465267.01

Application Number	Filed Date	Application Title
10/254,970	09/26/02	Voice/Tone Discriminator
10/138,700	05/06/02	System and Method for Distributed Processing of Packet Data Containing Audio Information
10/097,598	03/15/02	Sticky Condition Bit for Efficient Processing of Program Flow Changes Sticky Condition Bit for Efficient Processing of Program Flow Changes [System and method for longest prefix match for internet protocol lookup]
10/259,432	09/30/02	Jitter Buffer for Audio Encapsulated in RTP Packets
10/757,587	01/15/04	Minimum Processor Instruction for Implementing Weighted Fair Queuing and Other Priority Queuing
10/063,005	03/11/02	Clock Skew Compensation for a Jitter Buffer
09/683,922	03/01/02	A Method of Connecting a PPP Client to a PPPoE Access Concentrator Via a Bridge
10/230,054	08/29/02	Process and Algorithm for Secure Object Manipulation
10/064,335	07/02/02	Comunications System Using Rings Architecture
10/735,678	12/16/03	Scheduling Thread Execution
10/183,421	06/28/02	Estimating Salz SNR for G.SHDSL Data Rates Using Line Probe
10/340,635	01/13/03	Integrated PON Processor
10/614,338	07/08/03	method and system for allocating bandwidth
10/064,445	07/15/02	Improved synchronous data access
10/307,296	12/02/02	Intertask Messaging between Multiple Processors
10/340,651	01/13/03	System and Method for Improved Data Protection in PONs

Application	Filed	Application
Number	Date	Title
10/340,606	01/13/03	System and Method for Dynamic Bandwidth Allocation in PONs
10/642,309	08/18/03	Operating System for Executing Computer Software Applications
10/614,337	07/08/03	Method and System for Prioritizing UTOPIA CLAV Status Polling
10/615,613	07/08/03	Method and System for Optimizing UTOPIA CLAV Polling Arbitration
10/614,339	07/08/03	Method and System for Optimizing UTOPIA CLAV Polling Arbitration
10/614,220	07/08/03	A Method for the Generation of Pseudo Random Numbers
10/064,226	06/21/02	Method and Apparatus for PPP auto-connect
10/430,278	05/07/03	Method and system for preventing data loss in a VoIP system
10/746,235	12/29/03	Providing Quality of Service in Asynchronous Transfer Mode Cell Transmission
10/250,236	06/16/03	Apply transmit windowing for PSD in ADSL+ networks
10/614,109	07/08/03	Packet Transmission from Fragmented Buffer
10/614,374	07/08/03	Providing Network Timing Recovery
10/614,219	07/08/03	Interleaving SDRAM Device Access Requests
10/626,714	07/25/03	DBMsOL and FBMsOL Power Spectral Density Masks
10/626,727	07/25/03	Reduced SNR Handshake Signaling in ADSL Systems
10/626,771	07/25/03	Reduced Symbol Rate Handshake Signaling in ADSL Systems
10/626,770	07/25/03	Power Spectral Density Masks for ADSL+

Application	Filed	Application
Number	Date	Title
10/263,506	10/04/02	Fractional local peak detection & mitigation PAR reduction
10/263,732	10/04/02	STPI PAR reduction
10/714,907	11/18/03	Selectable Mask for LDSL
10/377,514	03/03/03	Zero-Installation PPP-Bridge (ZIPB) Setup for LAN-to-WAN Connectivity
10/644,023	08/20/03	Method and apparatus for generating a 64 state 4-D trellis code in DMT
10/672,078	09/29/03	Reducing Interferences Due to Handshake Tones
10/672,079	09/29/03	Reducing Interferences due to handshake tones
10/705,909	11/13/03	Attaching a USB network adapter supporting both RNDIS and non-RNDIS for capable operating systems
10/714,867	11/18/03	Smart DSL Systems for LDSL
10/408,364	04/08/03	Reduced Complexity Time- Frequency Equalizer for Discrete Multi-Tone Based DSL Systems
10/618,678	07/15/03	Channel Equalization and Cyclostationary Interference Rejection for ADSL-DMT Modems
10/702,456	11/07/03	ATM HEADER COMPRESSION USING HASH TABLES
10/714,660	11/18/03	Enhanced Smart DSL Systems for LDSL
10/714,661	11/18/03	Enhanced Smart DSL for LDSL
10/714,655	11/18/03	Power Spectral Density Masks for Improved Spectral Compatibility
10/721,259	11/26/03	Selecting an Optimal Asymmetric Digital Subscriber Line Mode
09/357,720	07/21/99	System and Method for Communicating in a Point-to Multipoint DSL Network

Application	Filed	Application
Number	Date	Title
10/786,921	02/25/04	Fully Integrated Broadband Tuner
09/617,587	07/18/00	Receiver Circuit
09/966,374	09/27/01	Method and Apparatus for Flexibly Filtering Scheduling Messages in a Communication System
10/012,684	11/13/01	System of and Method for Decoding Trellis Codes
09/870,926	05/30/01	SNR-Related Parameter Estimation Method and System
10/101,049	03/19/02	Method and Apparatus for Decoding Video Signals by Reusing Video Analog-to-Digital Converters to Demodulate Audio Information
09/892,069	06/26/01	Method and Apparatus for Scheduling Upstream Data Packets in a Broadband Communication System
10/464,361	06/17/03	Efficient communication system for reliable frame transmission over broad SNR ranges
10/099,556	03/13/02	Transmit Multiplexing and Receive Processing for Delay Spread Channels
10/389,272	03/14/03	Transmit Diversity Framing Structure fro Multipath Channels
10/376,824	02/28/03	Frequency Synthesizer with Automatic VCO Selection System
10/284,121	10/29/02	Subset Codes - a Low Complexity Multi-Rate Encoding and Decoding Scheme
10/600,163	06/19/03	Hypothetical Reference Decoder for Compressed Image and Video
10/611,400	06/30/03	Satellite Transcoder
10/611,402	06/30/03	System for Data Encryption and Decryption of Digital Data Entering and Leaving Memory

Application	Filed	Application
Number	Date	Title
10/611,325	06/30/03	Procedure For BPSK Modulation with Reduced Envelope Peaking
10/750,989	12/31/03	A Low-Cost High Performance Front-End Active Splitter for a System Containing Multiple Reception Units
10/751,013	12/31/03	DC Offset Correction for Direct Conversion Receiver
10/776,121	02/10/04	Comb Filter Design for Separating Luminance and Chrominance in Video Signals
10/776,075	02/10/04	Luminance and Chrominance Separation System
10/776,121	02/10/04	Comb Filter Design for Separating Luminance and Chrominance in Video Signals
09/499,833	02/08/00	Small-Format Subsystem for Broadband Communication Services
09/021,589	02/10/98	Bit Stream Protocol for the Integration of Text and Graphics In Multi-Media Applications
10/340,577	01/10/03	Signal Derotating Receiver
10/340,854	01/10/03	Guard Interval Analysis Method and Apparatus
09/887,877	06/21/01	Rate N/N Systematic, Recursive Convolutional Encoder and Corresponding Decoder
10/368,017	02/14/03	Symbol Reliability Determination and Symbol Pre-Selection Based on Reliability Criteria
10/108,054	03/25/02	Efficient, High Fidelity Transmission of Modulation Schemes Through Power- Constrained Remote Relay Stations by Local Transmit Predistortion and Local Receiver Feedback
10/250,353	06/27/03	Demodulator Circuit

Application	Filed	Application	
Number	Date	Title	
10/170,165	06/12/02	Method and Apparatus for a Multicarrier Receiver Circuit and Guard Interval Size Detection	
10/210,591	07/31/02	Integrated Programable Tuner	
10/214,960	08/08/02	Cable Receiver Having In-Band and Out-Of-Band Tuners	
10/677,110	10/01/03	Fast Channel Scanning and Acquisition Algorithms for Cable Modem Applications	
10/655,698	09/05/03	Hypothetical Reference Decoder for Compressed Image and Video	
10/675,566	09/30/03	Architecture for a Flexible and High-Performance Gateway Cable Modem	
10/676,900	09/30/03	TCP Acceleration System	
10/054,359	01/17/02	Efficient Head Related Transfer Function Filter Generation	
10/000,878	11/14/01	System and Method for Remote Translation of Data Packets	
10/418,748	04/17/03	Method and Apparatus for Preamble Detection and Time Estimation in OFDM Communication Systems	
10/079,188	02/20/02	MAC-Layer Priority Adjustment	
10/422,014	04/21/03	Circuit Connections for Sending Entertainment Content Over Local Area Networks	
10/422,070	04/21/03	Effective Spectrum Control in OFDM	
10/147,031	05/15/02	Method and Apparatus for Providing Life Line Service to Access Gateway Telephony Subscribers	
10/137,601	04/29/02	Digital Isolation Barrier as Interface Bus for Modems	
10/303,317	11/21/02	Power Proof Code Image Recovery	
10/346,572	01/15/03	Web-Based Redirect Feature	
10/697,819	10/31/03	Using a Transformer for Power,	

Application	Filed	Application
Number	Date	Title
		Timing, and Bidirectional Data
10/428,702	05/01/03	Compromise Equalizer for FSK Modulation Receiver
10/735,257	12/12/03	Method of Software Driver Delivery for Universal Serial Bus (USB) Devices
09/547,424	04/11/00	Modulation Switching for Splitterless DSL Transmission
09/290,854	04/13/99	An Image Processor that Performs Edge Enhancement Using a Dynamic Threshold
09/989,100	11/21/01	Integrated Transformer for Multiple Transceivers
09/765,741	01/19/01	System and Method for Sensing a Sound System
10/245,982	09/18/02	Method and Apparatus for Automatically Detecting Virtual Circuit Settings and Encapsulation Types in a DSL Network
10/738,256	12/17/03	Design of a Lateral Metal Insulator Metal Capacitor in a Semiconductor Metal Process to Meet Density and Slotting Rules
09/295,562	04/21/99	Electronic Device Attachment Methods and Apparatus for Forming an Assembly
10/735,678	12/16/03	Scheduling Thread Execution
10/642,309	08/18/03	Operating System for Executing Computer Software Applications
10/093,324	03/06/02	INTERFACING 622.08 MHz LINE INTERFACE TO A 77.76 MHz SONET FRAMER

United States Patents:

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
07/504,812	04/05/90	5,088,057	02/11/92	Rational Rate Frequency Generator
07/576,881	09/04/90	5,095,495	03/10/92	Use of Cyclostationary Signal to Constrain the Frequency Response of a Fractionally Spaced Equalizer
07/439,134	11/20/89	5,095,497	03/10/92	Technique for Achieving the Full Coding Gain of Encoded Digital Signals
07/562,050	08/02/90	5,115,452	05/19/92	Phase Jitter Correction Arrangement
07/620,868	11/30/90	5,134,633	07/28/92	Digital Communications Synchronization Scheme
07/386,753	07/31/89	5,146,494	09/08/92	Overlapping Look-Up-And-Add Echo Canceller Requiring a Smaller Memory Size
07/673,992	03/25/91	5,162,762	11/10/92	Phase-Lock Loop With Adaptive Scaling Element
07/776,525	10/11/91	5,162,812	11/10/92	Technique for Achieving the Full Coding Gain of Encoded Digital Signals
07/636,821	01/02/91	5,163,044	11/10/92	Use of a Fractionally Spaced Equalizer to Perform Echo Cancellation in a Full-Duplex Modem
07/705,246	05/24/91	5,163,066	11/10/92	Synchronizing the Operation of Multiple Equializers in a Digital Communications System
07/728,824	07/09/91	5,260,972	11/09/93	Technique for Determining Signal Dispersion Characteristics in Communications Systems
54,370	04/28/93	5,319,585	06/07/94	High Resolution Filtering Using Low Resolution Processors
07/830,036	01/31/92	5,331,670	07/19/94	Synchronization Scheme for a Digital Communications System
07/815,010	12/27/91	5,353,312	10/04/94	Equalizer-Based Timing Recovery
07/876,985	05/01/92	5,377,230	12/27/94	Extended Bandwidth Transmitter for Crosstalk Channels
07/831,715	02/05/92	5,384,810	01/24/95	Modulo Decoder
08/113,113	08/30/93	5,444,712	08/22/95	Communication Mode Identification Technique

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
08/322,877	10/13/94	5,513,216	04/30/96	Hybrid Equalizer Arrangement for Use in Data Communications Equipment
08/245,755	05/18/94	5,530,959	06/25/96	Self-Synchronizing Scrambler/Descrambler Without Error Multiplication
08/290,253	08/15/94	5,541,961	07/30/96	Digitally Controlled High Resolution Hybrid Phase Synthesizer
08/586,008	12/29/95	5,703,904	12/30/97	Impulse Noise Effect Reduction
08/602,944	02/16/96	5,703,905	12/30/97	Multi-Channel Timing Recovery System
08/579,713	12/28/95	5,732,112	03/24/98	Channel Training of Multi-Channel Receiver System
08/628,220	04/04/96	5,748,686	05/05/98	System and Method Producing Improved Frame Synchronization in a Digital Communication System
08/690,243	07/19/96	5,751,701	05/12/98	Rate Adaptive Digital Subscriber Line (RADSL) Modem
09/050,474	03/10/98	5,852,630	12/22/98	System and Method for a RADSL Transceiver Warm Start Activation Procedure with Precoding
08/605,404	02/22/96	5,881,108	03/09/99	Adaptive Pre-Equalizer for Use in Data Communications Equipment
08/469,558	06/06/95	5,898,710	04/27/99	Implied Interleaving, a Family of Systematic Interleavers and Deinterleavers
08/874,977	06/13/97	5,959,510	09/28/99	A Second Order Filter with Low Sensitivity to Component Values and a Method for Designing the Same
08/874,863	06/13/97	5,963,112	10/05/99	Cascaded Higher Order Filter With Low Sensitivity to Component Values and a Method for Designing the Same
09/058,346	04/10/98	5,968,200	10/19/99	Implied Interleaving a Family of Systematic Interleavers and Deinterleavers
08/944,941	10/02/97	5,970,098	10/19/99	Multilevel Encoder
08/953,082	10/17/97	5,991,336	11/23/99	System and Method for Optimizing High Speed Data Transmission
08/924,146	09/05/97	5,996,104	11/30/99	System for Coding Signals

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
09/045,434	03/20/98	6,009,132	12/28/99	System and Method for Obtaining Clock Recovery from a Received Signal in a Communication System
08/944,942	10/02/97	6,034,996	03/07/00	System and Method for Concatenating Reed-Solomon and Trellis Codes
09/152,441	09/14/98	6,065,127	05/16/00	Multi-Mode Buffer for Digital Signal Processor
08/974,395	11/19/97	6,067,316	05/23/00	Circuit for Combined XDSL and Other Services
09/075,722	05/11/98	6,101,217	08/08/00	System and Method for Demodulating Digital Information from an Odd Constellation
09/361,801	07/27/99	6,118,265	09/12/00	Reference Voltage Stabilization System and Method for Fixing Reference Voltages, Independent of Sampling Rate
09/014,813	01/28/98	6,144,733	11/07/00	Ring Filter for POTS Communication System
09/170,753	10/13/98	6,154,037	11/28/00	System and Method for Testing Distortion in Transformers
09/016,994	02/02/98	6,167,034	12/26/00	Rate Adaptive Digital Subscriber Line (RADSL) Modem
09/361,713	07/27/99	6,181,122	01/30/01	System and Method for Starting Voltage and Current Controlled Elements
09/219,914	12/23/98	6,192,109	02/20/01	Apparatus and Method for Improved DSL Communication
09/164,921	10/01/98	6,192,498	02/20/01	System and Method for Generating Error Checking Data in a Communications System
09/170,749	10/13/98	6,205,410	03/20/01	System and Method for Bit Loading with Optimal Margin Assignment
09/022,564	02/12/98	6,208,732	03/27/01	Switched Hybrid Circuit for Use with Digital Subscriber Lines
09/294,131	04/19/99	6,211,719	04/03/01	Power Control Circuit for a Line Driver
09/113,468	07/10/98	6,219,386	04/17/01	Frameless Reed-Solomon Coding System and Method
09/175,886	10/20/98	6,233,594	05/15/01	Decimation Filter Design for Over- Sampling Analog-to-Digital Converter OSADC

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
09/005,645	01/12/98	6,243,425	06/05/01	Adaptive Precoding System & Method for Equalizing Communication Signal
09/456,451	12/08/99	6,266,347	07/24/01	System and Method for Modifying Symbol Duration for the Efficient Transmission of Information in a Time Duplex Noise Environment
09/517,979	03/03/00	6,268,815	07/31/01	High-Performance Switched-Capacitor Filter for Oversampling Sigma-Delta Digital to Analog Converters
09/384,672	08/27/99	6,281,829	08/28/01	Multi-Mode Analog Front End
08/932,899	09/18/97	6,301,337	10/09/01	Combined Handset and POTS Filter
09/174,026	10/16/98	6,310,896	10/30/01	System and Method for Data Sequence Correlation in the Time Domain
09/014,155	01/27/98	6,327,666	12/04/01	System and Method for External Timing using a Complex Rotator
09/637,748	08/11/00	6,351,185	02/26/02	Increased Output Swing Line Drivers for Operation at Supply Voltages Exceeding the Breakdown Voltage of the Technology
09/663,280	09/15/00	6,353,347	03/05/02	Power Control Circuit for a Line Driver
09/746,756	12/20/00	6,353,361	03/05/02	Fully-Differential Two-Stage Operation Amplifier with Gain-Boosting in the First Stage
09/303,730	05/03/99	6,353,644	03/05/02	System and Method for Performing Time Domain Equalization
09/309,462	05/11/99	6,353,909	03/05/02	Configurable Encoder and Method for Generating a Reed-Solomon Codeword
09/335,975	06/18/99	6,370,671	04/09/02	Configurable Decoder and Method for Decoding a Reed-Solomon Codeword
09/127,414	07/31/98	6,385,234	05/07/02	Transceiver Circuit and Method
09/382,298	08/24/99	6,407,611	06/18/02	System and Method for Providing Automatic Compensation of IC Design Parameters that Vary as a Result of Natural Process Variation
09/243,024	02/03/99	6,412,027	06/25/02	Direct Memory Access Controller Having On-Board Arbitration Circuitry

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
09/336,626	06/18/99	6,412,090	06/25/02	Galois Field Computation System and Method
09/247,366	02/10/99	6,415,338	07/02/02	System for Writing a Data Value at a Starting Address to a Number of Consecutive Locations Equal to a Segment Length Identifier
09/336,630	06/18/99	6,415,413	07/02/02	Configurable Reed-Solomon Controller and Method
09/164,552	10/01/98	6,421,377	07/16/02	System and Method for Echo Cancellation Over Asymmetric Spectra
09/164,969	10/01/98	6,427,179	07/30/02	System and Method for Protocol Conversion in a Communications System
09/164,329	10/01/98	6,442,178	08/27/02	System and Method for Data Alignment in a Communication System
09/247,407	02/10/99	6,453,365	09/17/02	Direct Memory Access Controller Having Decode Circuit for Compact Instruction Format
09/203,029	12/01/98	6,459,678	10/01/02	System and Method for Providing Near Optimal Bit Loading in a Discrete Multi-Tone Modulation System
09/156,158	09/17/98	6,466,588	10/15/02	Apparatus for Facilitating Combined POTS and xDSL Services at a Customer Premises
09/747,470	12/20/00	6,476,675	11/05/02	A Double-Cascode Two-Stage Operational Amplifier
09/398,636	09/17/99	6,477,554	11/05/02	Circuit and Method for Computing Fast Fourier Transform
09/431,688	11/01/99	6,477,655	11/05/02	System and Method for Providing Peripheral Component Interconnect (PCI) Power Management Support Without Requiring a Clock
09/523,747	03/13/00	6,480,976	11/12/02	System and Method for Resource Optimized Integrated Forward Error Correction in a DMT Communication System
09/425,396	10/22/99	6,490,639	12/03/02	Peripheral Component Interconnect (PCI) Single Channel Master Direct Memory Access (DMA) Serving Two Separate Channels

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
09/311,964	05/14/99	6,490,672	12/03/02	Method for Computing a Fast Fourier Transform and Associated Circuit for Addressing a Data Memory
10/044,726	01/11/02	6,531,902	03/11/03	A Line Driver Operative from a Single Supply and Method for Supplying Voltages to a Load
09/816,506	03/23/01	6,534,996	03/18/03	Phone Line Characterization by Time Domain Reflectometry
09/164,886	10/01/98	6,535,522	03/18/03	Multiple Protocol Interface and Method for Use in a Communications System
09/524,464	03/13/00	6,536,001	03/18/03	Circuit and Method for Convolutional Interleaving Using Single Modulo Operation
09/637,747	08/11/00	6,538,510	03/25/03	High Efficiency, Current Sink Only Line Driver
10/198,848	07/18/02	6,538,512	03/25/03	A Double-Cascode Two-Stage Operational Amplifier
09/311,969	05/14/99	6,549,925	04/15/03	Circuit for Computing a Fast Fourier Transform
10/039,144	01/04/02	6,580,286	06/17/03	Method and Apparatus for Active Line Termination
09/457,017	12/08/99	6,580,752	06/17/03	Alternative Configurations for an ADSL System Operating in a Time Duplex Noise Environment
09/384,671	08/27/99	6,580,760	06/17/03	Line Driver Architecture with Programmable Gain and Drive
09/602,413	06/23/00	6,583,662	06/24/03	Circuit and Method for Implementing an Integrated Continuous-Time Smoothing Filter
09/373,841	08/13/99	6,584,160	06/24/03	System and Method for Reducing the Effects of Clipping in a DMT Transceiver
09/971,400	10/05/01	6,586,992	07/01/03	System and Method for Increasing Power Range in a Power Amplifier Using a Single Voltage Supply
09/470,798	12/23/99	6,587,502	07/01/03	System and Method for Profile Selection During Fast Retrain of a Wideband Modem
09/862,919	05/22/01	6,593,828	07/15/03	System and Method for Filter Tuning

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
09/505,528	02/17/00	6,597,746	07/22/03	System and Method for Peak to Average Power Ratio Reduction
10/140,624	05/07/02	6,608,571	08/19/03	System and Method for Communicating Over a One-Wire Bus
10/199,270	07/18/02	6,608,842	08/19/03	Apparatus for Facilitating Combined POTS and xDSL Services at a Customer Premises
09/855,080	05/14/01	6,614,374	09/02/03	High-Performance Switched-Capacitor Filter for Oversampling Sigma-Delta Digital to Analog Converters
10/247,144	09/19/02	6,615,227	09/02/03	Circuit and Method for Computing Fast Fourier Transform
10/077,114	02/15/02	6,618,462	09/09/03	Digital Frequency Divider
09/248,440	02/11/99	6,621,859	09/16/03	Combined Cable and DSL Modem for High Speed Data Communication
09/759,694	01/12/01	6,622,282	09/16/03	Trellis Coding with One-Bit Constellations
10/126,602	06/05/02	6,629,117	09/30/03	Method for Computing a Fast Fourier Transform and Associated Circuit for Addressing a Data Memory
10/177,437	06/20/02	6,646,576	11/11/03	System and Method for Processing Data
09/471,685	12/23/99	6,646,994	11/11/03	System and Method for Controlling Distortion in the POTS Band in a Dual POTS and Discrete Multi-Tone Communication System
10/213,502	08/06/02	6,650,177	11/18/03	System and Method for Tuning an RC Continuous-Time Filter
09/683,752	02/11/02	6,651,187	11/18/03	System and Method for Determining Fault Path Behavior
09/815,509	03/23/01	6,658,499	12/02/03	Joint Negotiation of ADSL and USB Bandwidth for an ADSL USB Modem
09/912,993	07/25/01	6,662,245	12/09/03	Apparatus and Method for Blocking Memory Access During DMA Transfer
10/063,036	03/13/02	6,667,561	12/23/03	Integrated Circuit Package Capable of Operating in Multiple Orientations
09/632,345	08/03/00	6,671,374	12/30/03	Adaptive Filter for Echo Cancellation, Method for Operating an Adaptive Filter

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
09/358,192	07/21/99	6,678,721	01/13/04	System and Method for Establishing a Point-to-Multipoint DSL Network (Dynamic Master/Slave Configuration)
10/213,476	08/06/02	6,696,869	02/24/04	A Buffer Circuit for a High-Bandwidth Analog to Digital Converter
09/523,637	03/13/00	6,711,207	03/23/04	System and Method for Reduced Power Consumption in Digital Subscriber Line Modems
09/702,468	10/31/00	6,718,419	04/06/04	Extending Number of PHY Devices on UTOPIA Level 2 Bus
09/357,706	07/20/99	6,725,059	04/20/04	System and Method for Improving Communications Between a Digital Loop Carrier and a Central Office
09/164,850	10/01/98	6,738,389	05/18/04	Circuit and Method for Performing Partial Parallel Data Transfer in a Communications System
10/213,483	08/06/02	6,741,120	05/25/04	Improved Active Filter and Method
10/336,922	01/06/03	6,741,196	05/25/04	High-drive-current digital-to-analog converter
10/014,315	12/11/01	6,741,701	05/25/04	Dual Echo Canceller and Method for Increasing Dynamic Range of a Receiver
10/047,180	11/09/01	6,756,846	06/29/04	Increased Output Swing Line Drivers for Operation at Supply Voltages Exceeding the Breakdown Voltage of the Technology
09/471,310	12/23/99	6,760,348	07/06/04	System and Method for Tone Detection in a Discrete Multi-Tone System
09/575,489	05/19/00	6,763,470	07/13/04	Dynamically Switched Amplifier with Improved Power Efficiency
09/640,123	08/16/00	6,765,954	07/20/04	System and Method for Implementing a Delta-Sigma Modulator Integrity Supervisor
10/619,451	07/16/03	6,770,493	08/03/04	Integrated Circuit Package Capable of Operating in Multiple Orientations
09/691,933	10/19/00	6,775,305	08/10/04	System and Method for Combining Multiple Physical Layer Transport Links

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
09/578,763	05/25/00	6,785,296	08/31/04	System and Method for Providing Bandwidth Management Within a Small Office, Home Office Network
10/321,509	12/18/02	6,788,236	09/07/04	Implementation of Sigma Delta Analog- to-Digital Converter
09/715,293	11/17/00	6,788,745	09/07/04	Differential Line Driver Circuit with Active Termination
09/892,003	06/26/01	6,801,621	10/05/04	Active Terminator Line Interface
09/689,053	10/12/00	6,804,318	10/12/04	System and Method for Using a Network Timing Reference Circuit as a Phase Detector in a Synchronization Loop
09/746,873	12/22/00	6,813,325	11/02/04	System and Method to Reduce Transmit Wander in a Digital Subscriber Line
10/315,743	12/10/02	6,829,251	12/07/04	System and Method for Increasing Data Capacity in Communication Systems
10/011,183	11/13/01	6,851,046	02/01/05	System and Method for Executing Ternary Branch Instructions
10/614,214	07/08/03	6,854,025	02/08/05	DMA scheduling mechanism
10/021,064	12/19/01	6,856,953	02/15/05	Method and System for Testing Algorithm Compliancy
09/863,164	05/21/01	6,879,625	04/12/05	Method of Canceling Interference in a Repeater Configuration with Remote Loop Powering
09/971,484	10/05/01	6,894,580	05/17/05	Filter Tuner System and Method
09/819,325	03/28/01	6,909,781	06/21/05	DSL Line Tester
09/975,446	10/11/01	6,922,444	07/26/05	Adaptive Rate Selection Method with Performance Consideration of Impulse Noise Protection
09/639,515	08/15/00	6,934,328	08/23/05	Relaxed, More Optimum Training for Modems and the Like
09/683,763	02/12/02	6,952,430	10/04/05	A Timing Independent Interface Between a Data Link Protocol Engine and Physical Layer
09/969,323	10/02/01	6,952,458	10/04/05	Demapping System and Method
09/862,911	05/22/01	6,956,872	10/18/05	System and Method for Encoding DSL Information Streams Having Differing

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
				Latencies
09/683,762	02/11/02	6,961,779	11/01/05	Method for Robust Parsing of Multiple- Frame Protocol Messages Segmented on an Arbitrary Boundary
09/732,456	12/06/00	6,967,996	11/22/05	System and Method for Optimizing Digital Subscriber Line Performance between Transceivers from Multiple Manufacturers
09/793,172	02/26/01	6,971,057	11/29/05	Efficient Method for DMT Convolutional Interleaving/Deinterleaving
09/808,760	03/15/01	6,999,504	02/14/06	System and Method for Canceling Crosstalk
09/862,952	05/22/01	7,010,025	03/07/06	Circuit and Method for an Improved Front End in Duplex Signal Communication Systems
10/161,687	06/05/02	7,013,271	03/14/06	Low Complexity Spectrum Estimation Technique for Comfort Noise Generation
10/021,591	10/30/01	7,016,489	03/21/06	System and Method for Predorming Echo Cancellation for Non-Linearities
09/888,735	06/25/01	7,031,378	04/18/06	Unified DSL Transceiver
10/322,568	12/19/02	7,031,414	04/18/06	Combined feedforward filter for a DFE
09/632,029	08/02/00	7,035,323	04/25/06	System and Method for Combining Multiple Digital Subscriber Line Transceivers
10/090,865	03/04/02	7,042,875	05/09/06	High Speed Multiplexing Switch
10/214,341	08/06/02	7,061,987	06/13/06	Wide-Band Analog Front-End for DSL Applications
09/997,662	11/29/01	7,068,592	06/27/06	System and Method for Increasing Payload Capacity by Clustering Unloaded Bins in a Data Transmission System
09/939,439	08/24/01	7,068,780	06/27/06	Hybrid Echo Canceller
09/579,309	05/25/00	7,069,328	06/27/06	System and Method to Interface a Local Area Network with a Wide Area Network

Application	Filed	Patent	Issued	Application
Number	Date	Number	Date	Title
10/321,508	12/18/02	7,076,514	07/11/06	Computation of Pre-Equalizer Coefficients
10/064,340	07/02/02	7,103,008	09/05/06	Communications System Using Rings Architecture
10/224,726	08/20/02	7,103,097	09/05/06	System and Method for Reducing Peak- to-Average Ratio (Par) Values
10/068,610	02/06/02	7,106,860	09/12/06	A System and Method for Executing Advanced Encryption Standard (AES) Algorithm
10/393,345	03/21/03	7,120,211	10/10/06	Adaptive RFI Canceller for xDSL
09/360,252	07/23/99	6,243,414	06/05/01	METHOD AND APPARATUS FOR DATA TRANSMISSION
09/509,169	06/05/00	6,754,899	06/22/04	Shared Memory Access Controller
09/529,124	06/26/00	6,470,428	10/22/02	Cache memory operation
09/529,367	04/11/00	6,397,305	05/28/02	Method and Apparatus for Controlling Shared Memory Access
09/519,173	03/06/00	6,711,169	03/23/04	Session Protection Mechanism
09/904,924	07/13/01	6,990,062	01/24/06	Reduced Complexity DMT/OFDM Transceiver
09/496,793	02/02/00	6,985,548	01/10/06	System and Method for Timing Recovery in a Discrete Multi-Tone System
10/054,294	11/13/01	6,804,292	10/12/04	Broadband I/O Circuits, Interface and Bus
09/255,235	02/22/99	6,345,072	02/05/02	Universal DSL Link Interface Between A DSL Digital Controller and A DSL Codec
10/054,327	11/13/01	6,904,083	06/07/05	DSL LINK WITH EMBEDDED CONTROL AND MULTI-CHANNEL CAPABILITY
09/701,810	12/01/00	6,771,697	08/03/04	SPREAD SPECTRUM HANDSHAKE FOR DIGITAL SUBSCRIBER LINE TELECOMMUNICATIONS SYSTEMS
09/263,160	03/05/99	6,570,912	05/27/03	Hybrid Software/Hardware Discrete Multi-Tone Transceiver
09/893,383	06/27/01	6,567,465	05/20/03	DSL Modem Utilizing Low Density Parity Check Modes
10/054,410	11/13/01	6,836,510	12/28/04	DSL Link With Scaleable Performance

Application Number	Filed Date	Patent Number	Issued Date	Application Title
09/578,980	05/25/00	6,297,759	10/02/01	Digital-to-Analog Converter with High- Speed Output
10/849,569	05/20/04			Method and system for mitigating fourier transform side lobes
10/860,286	06/04/04			Multilevel channel coding in ADSL
10/874,329	06/24/2004			Technique for improving multiple- channel multi-tone transmissions
11/534,760	09/25/2006			Systems for Transferring Various Data Types Across an ATM Network

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