

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT												
NATURE OF CONVEYANCE:	Corrective Assignment to correct the incorrect patent application number 13/341,092 previously recorded on Reel 030947 Frame 0710. Assignor(s) hereby confirms the patent application number 13/341,092 is not owned by PMC-Sierra, Inc. or any of the assignors named in the Security Agreement.												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>PMC-Sierra, Inc.</td> <td>08/02/2013</td> </tr> <tr> <td>PMC-Sierra US, Inc.</td> <td>08/02/2013</td> </tr> <tr> <td>Wintegra, Inc.</td> <td>08/02/2013</td> </tr> </tbody> </table>		Name	Execution Date	PMC-Sierra, Inc.	08/02/2013	PMC-Sierra US, Inc.	08/02/2013	Wintegra, Inc.	08/02/2013				
Name	Execution Date												
PMC-Sierra, Inc.	08/02/2013												
PMC-Sierra US, Inc.	08/02/2013												
Wintegra, Inc.	08/02/2013												
RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>Bank of America, N.A.</td> </tr> <tr> <td>Street Address:</td> <td>101 South Tryon Street</td> </tr> <tr> <td>Internal Address:</td> <td>Attn: Erik M. Truette</td> </tr> <tr> <td>City:</td> <td>Charlotte</td> </tr> <tr> <td>State/Country:</td> <td>NORTH CAROLINA</td> </tr> <tr> <td>Postal Code:</td> <td>28255-0001</td> </tr> </table>		Name:	Bank of America, N.A.	Street Address:	101 South Tryon Street	Internal Address:	Attn: Erik M. Truette	City:	Charlotte	State/Country:	NORTH CAROLINA	Postal Code:	28255-0001
Name:	Bank of America, N.A.												
Street Address:	101 South Tryon Street												
Internal Address:	Attn: Erik M. Truette												
City:	Charlotte												
State/Country:	NORTH CAROLINA												
Postal Code:	28255-0001												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13341092</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13341092								
Property Type	Number												
Application Number:	13341092												
CORRESPONDENCE DATA													
Fax Number:	9177777373												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	212-735-3000												
Email:	andrew.patrick@skadden.com												
Correspondent Name:	Skadden Arps Slate Meagher & Flom LLP												
Address Line 1:	Four Times Square												
Address Line 2:	Attn: Adam Greenberg, Esq.												
Address Line 4:	New York, NEW YORK 10036												
ATTORNEY DOCKET NUMBER:	106670/17												

CH \$40.00 13341092

NAME OF SUBMITTER:	Adam Greenberg
Signature:	/Adam Greenberg/
Date:	08/30/2013

Total Attachments: 56

source=PMC Patent Security Agreement#page1.tif
source=PMC Patent Security Agreement#page2.tif
source=PMC Patent Security Agreement#page3.tif
source=PMC Patent Security Agreement#page4.tif
source=PMC Patent Security Agreement#page5.tif
source=PMC Patent Security Agreement#page6.tif
source=PMC Patent Security Agreement#page7.tif
source=PMC Patent Security Agreement#page8.tif
source=PMC Patent Security Agreement#page9.tif
source=PMC Patent Security Agreement#page10.tif
source=PMC Patent Security Agreement#page11.tif
source=PMC Patent Security Agreement#page12.tif
source=PMC Patent Security Agreement#page13.tif
source=PMC Patent Security Agreement#page14.tif
source=PMC Patent Security Agreement#page15.tif
source=PMC Patent Security Agreement#page16.tif
source=PMC Patent Security Agreement#page17.tif
source=PMC Patent Security Agreement#page18.tif
source=PMC Patent Security Agreement#page19.tif
source=PMC Patent Security Agreement#page20.tif
source=PMC Patent Security Agreement#page21.tif
source=PMC Patent Security Agreement#page22.tif
source=PMC Patent Security Agreement#page23.tif
source=PMC Patent Security Agreement#page24.tif
source=PMC Patent Security Agreement#page25.tif
source=PMC Patent Security Agreement#page26.tif
source=PMC Patent Security Agreement#page27.tif
source=PMC Patent Security Agreement#page28.tif
source=PMC Patent Security Agreement#page29.tif
source=PMC Patent Security Agreement#page30.tif
source=PMC Patent Security Agreement#page31.tif
source=PMC Patent Security Agreement#page32.tif
source=PMC Patent Security Agreement#page33.tif
source=PMC Patent Security Agreement#page34.tif
source=PMC Patent Security Agreement#page35.tif
source=PMC Patent Security Agreement#page36.tif
source=PMC Patent Security Agreement#page37.tif
source=PMC Patent Security Agreement#page38.tif
source=PMC Patent Security Agreement#page39.tif
source=PMC Patent Security Agreement#page40.tif
source=PMC Patent Security Agreement#page41.tif
source=PMC Patent Security Agreement#page42.tif
source=PMC Patent Security Agreement#page43.tif
source=PMC Patent Security Agreement#page44.tif
source=PMC Patent Security Agreement#page45.tif
source=PMC Patent Security Agreement#page46.tif
source=PMC Patent Security Agreement#page47.tif

source=PMC Patent Security Agreement#page48.tif
source=PMC Patent Security Agreement#page49.tif
source=PMC Patent Security Agreement#page50.tif
source=PMC Patent Security Agreement#page51.tif
source=PMC Patent Security Agreement#page52.tif
source=PMC Patent Security Agreement#page53.tif
source=PMC Patent Security Agreement#page54.tif
source=PMC Patent Security Agreement#page55.tif
source=PMC Patent Security Agreement#page56.tif

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT																												
NATURE OF CONVEYANCE:	Security Interest in Patents																												
CONVEYING PARTY DATA																													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>PMC-Sierra, Inc.</td> <td>08/02/2013</td> </tr> <tr> <td>PMC-Sierra US, Inc.</td> <td>08/02/2013</td> </tr> <tr> <td>Wintegra, Inc.</td> <td>08/02/2013</td> </tr> </tbody> </table>		Name	Execution Date	PMC-Sierra, Inc.	08/02/2013	PMC-Sierra US, Inc.	08/02/2013	Wintegra, Inc.	08/02/2013																				
Name	Execution Date																												
PMC-Sierra, Inc.	08/02/2013																												
PMC-Sierra US, Inc.	08/02/2013																												
Wintegra, Inc.	08/02/2013																												
RECEIVING PARTY DATA																													
<table border="1"> <tr> <td>Name:</td> <td>Bank of America, N.A.</td> </tr> <tr> <td>Street Address:</td> <td>101 South Tryon Street</td> </tr> <tr> <td>Internal Address:</td> <td>Attn: Erik M. Truette</td> </tr> <tr> <td>City:</td> <td>Charlotte</td> </tr> <tr> <td>State/Country:</td> <td>NORTH CAROLINA</td> </tr> <tr> <td>Postal Code:</td> <td>28255-0001</td> </tr> </table>		Name:	Bank of America, N.A.	Street Address:	101 South Tryon Street	Internal Address:	Attn: Erik M. Truette	City:	Charlotte	State/Country:	NORTH CAROLINA	Postal Code:	28255-0001																
Name:	Bank of America, N.A.																												
Street Address:	101 South Tryon Street																												
Internal Address:	Attn: Erik M. Truette																												
City:	Charlotte																												
State/Country:	NORTH CAROLINA																												
Postal Code:	28255-0001																												
PROPERTY NUMBERS Total: 697																													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Patent Number:</td> <td>7895464</td> </tr> <tr> <td>Patent Number:</td> <td>6427212</td> </tr> <tr> <td>Patent Number:</td> <td>6029168</td> </tr> <tr> <td>Patent Number:</td> <td>6012123</td> </tr> <tr> <td>Patent Number:</td> <td>5544326</td> </tr> <tr> <td>Patent Number:</td> <td>5557750</td> </tr> <tr> <td>Patent Number:</td> <td>5732223</td> </tr> <tr> <td>Patent Number:</td> <td>6449731</td> </tr> <tr> <td>Patent Number:</td> <td>6530036</td> </tr> <tr> <td>Patent Number:</td> <td>7373541</td> </tr> <tr> <td>Patent Number:</td> <td>6393576</td> </tr> <tr> <td>Patent Number:</td> <td>7376759</td> </tr> <tr> <td>Patent Number:</td> <td>7765502</td> </tr> </tbody> </table>		Property Type	Number	Patent Number:	7895464	Patent Number:	6427212	Patent Number:	6029168	Patent Number:	6012123	Patent Number:	5544326	Patent Number:	5557750	Patent Number:	5732223	Patent Number:	6449731	Patent Number:	6530036	Patent Number:	7373541	Patent Number:	6393576	Patent Number:	7376759	Patent Number:	7765502
Property Type	Number																												
Patent Number:	7895464																												
Patent Number:	6427212																												
Patent Number:	6029168																												
Patent Number:	6012123																												
Patent Number:	5544326																												
Patent Number:	5557750																												
Patent Number:	5732223																												
Patent Number:	6449731																												
Patent Number:	6530036																												
Patent Number:	7373541																												
Patent Number:	6393576																												
Patent Number:	7376759																												
Patent Number:	7765502																												

CH \$27880.00 7895464

PATENT

REEL: 031124 FRAME: 0409

SECURITY INTEREST IN PATENTS

This SECURITY INTEREST IN PATENTS, dated as of August 2, 2013 (as amended, supplemented or otherwise modified from time to time, this "Agreement"), is made by PMC-Sierra, Inc. (successor-in-interest to Sierra Semiconductor and successor-in-interest to certain IP Collateral of Adaptec, Inc. and IDT, Inc.), PMC-Sierra US, Inc. (successor-in-interest to PMC-Sierra (Maryland), Inc.) and Wintegra, Inc. (collectively, the "Grantors") in favor of Bank of America, N.A., as administrative agent (in such capacity, the "Administrative Agent") for the benefit of Secured Parties (as defined in the Credit Agreement referred to below).

A. PMC-Sierra, Inc. and PMC-Sierra US, Inc., as borrowers, have entered into that certain Credit Agreement, dated as of August 2, 2013 (as amended, amended and restated, restated, supplemented or otherwise modified from time to time, the "Credit Agreement") with Bank of America Merrill Lynch, as sole lead arranger and sole book manager, certain lenders from time to time party thereto (the "Lenders") and the Administrative Agent, as administrative agent, swing line lender and L/C issuer.

B. Grantors have entered into that certain Collateral Agreement, dated as of August 2, 2013 in favor of the Administrative Agent for the benefit of the Secured Parties (as defined in the Credit Agreement) (as amended, amended and restated, restated, supplemented or otherwise modified from time to time, the "Collateral Agreement"). Capitalized terms used and not defined herein have the meanings given such terms in the Credit Agreement or the Collateral Agreement, as applicable.

C. Under the terms of the Collateral Agreement, the Grantors have granted and pledged to the Administrative Agent, for the benefit of the Administrative Agent and the other Secured Parties (as defined in the Credit Agreement) a continuing security interest in certain Collateral (as defined in the Collateral Agreement), including without limitation certain Intellectual Property (as defined in the Collateral Agreement) of the Grantors, and have agreed to execute this Agreement for recording with the United States Patent and Trademark Office.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantors agree as follows:

SECTION 1. Grant of Security. Each Grantor hereby grants and pledges to the Administrative Agent, for the benefit of the Administrative Agent and the other Secured Parties, a continuing security interest in all of such Grantor's right, title and interest in the following property, now owned or at any time hereafter acquired by such Grantor or in which such Grantor now has or at any time in the future may acquire any right, title or interest, and wherever located or deemed located (the "IP Collateral"), as collateral security for the prompt and complete payment and performance when due (whether at the stated maturity, by acceleration or otherwise) of the Secured Obligations (as defined in the Collateral Agreement): (a) all United States patents, all rights and interests in patents, patent disclosures, patentable inventions and patent applications anywhere in the world, including, without limitation, those listed on Schedule 1 hereto, (b) all improvements thereto, reissues, provisional, continuations (in whole or in part), divisionals, reexaminations and renewals and extensions of any of the foregoing, (c) all income, royalties, damages or payments now or hereafter due and/or payable under any of the foregoing or with respect to any of the foregoing, including, without limitation, damages or payments for past, present or future infringements of any of the foregoing, (d) the right to sue for past, present and future infringements of any of the foregoing and (e) all rights corresponding to any of the foregoing throughout the world.

SECTION 2. Recordation. Each Grantor authorizes and requests that the United States Commissioner of Patents and Trademarks record this Agreement.

SECTION 3. Execution in Counterparts. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto. Delivery of an executed counterpart of a signature page of this Agreement by facsimile or other electronic imaging means (e.g. "pdf" or "tif") shall be effective as delivery of a manually executed counterpart of this Agreement.

SECTION 4. Governing Law. This Agreement shall be governed by, and construed and interpreted in accordance with, the law of the State of New York.

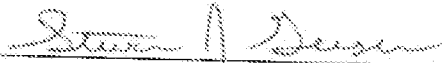
SECTION 5. Conflict Provision. This Agreement has been entered into in conjunction with the provisions of the Collateral Agreement and the Credit Agreement. The grant of the security interest hereunder to, and the rights and remedies of, the Administrative Agent with respect to the IP Collateral are more fully set forth in the Collateral Agreement and the Credit Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein. In the event that any provisions of this Agreement are in conflict with the Collateral Agreement or the Credit Agreement, the provisions of the Collateral Agreement or the Credit Agreement shall govern.

SECTION 6. Release. Upon termination of the Collateral Agreement or the security interests granted thereunder, the IP Collateral shall immediately and automatically be released from the Liens (as defined in the Credit Agreement) created hereby, and this Agreement and all obligations of the Administrative Agent and each Grantor hereunder shall terminate, all without delivery of any instrument or performance of any act by any party, and all rights to the IP Collateral shall revert to the Grantors. At the request and sole expense of any Grantor following any such termination, the Administrative Agent shall deliver to such Grantor any IP Collateral held by the Administrative Agent hereunder and execute and deliver to such Grantor such documents (in form and substance reasonably satisfactory to such Grantor and the Administrative Agent) as such Grantor may reasonably request to evidence such termination.

IN WITNESS WHEREOF, each of the undersigned has caused this Security Interest in Patents to be duly executed and delivered as of the date first above written.

PMC-SIERRA, INC.

By:




Name: Steven J. Geiser

Title: VP, Finance and Chief Financial Officer

[Signature Page to Security Interest in Patents]

IN WITNESS WHEREOF, each of the undersigned has caused this Security Interests in Patents to be duly executed and delivered as of the date first above written.

PMC-SIERRA US, INC.

By: 
Name: Alinka Flaminia
Title: Secretary

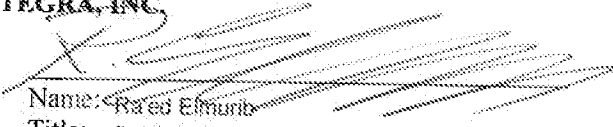
[Signature Page to Security Interest in Patents]

PATENT
REEL: 031124 FRAME: 0413

IN WITNESS WHEREOF, each of the undersigned has caused this Security Interest in Patents to be duly executed and delivered as of the date first above written.

WINTEGRA, INC.

By:


Name: Raed Elmurib

Title: President

[Signature Page to Security Interest in Patents]

BANK OF AMERICA, N.A.,
as Administrative Agent

By: *Darleen R. Parmelee*

Name: Darleen R. Parmelee

Title: Assistant Vice President

Schedule 1

[see attached]

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	7895464	2/22/2011	Cache synchronization in a raid subsystem using serial attached scsi and/or serial ATA	12131329	6/2/2008	PMC-Sierra, Inc.	Adaptec, Inc.
United States	6427212	30-Jul-02	Data fault tolerance software apparatus and method	09191943	11/13/1998	PMC-Sierra, Inc.	
United States	6029168	22-Feb-00	Decentralized file mapping in a striped network file system in a distributed computing environment	09012267	01/23/1998	PMC-Sierra, Inc.	
United States	6012123	4-Jan-00	External I/O controller system for an independent access parity disk array	08872019	06/10/1997	PMC-Sierra, Inc.	
United States	5544326	6-Aug-96	Interface and control circuit for regulating data flow in a scsi initiator with multiple host bus interface selection	08029910	03/11/1993	PMC-Sierra, Inc.	
United States	5557750	17-Sep-96	Prefetch/prestore mechanism for peripheral controllers with shared internal bus	07963583	10/20/1992	PMC-Sierra, Inc.	
United States	5732223	24-Mar-98	Scsi host adapter with shared command and data buffer	07963584	10/20/1992	PMC-Sierra, Inc.	
United States	6449731	10-Sep-02	Self-healing computer system storage	09375909	08/17/1999	PMC-Sierra, Inc.	
United States	6530036	4-Mar-03	Self-healing computer system storage	09439440	11/15/1999	PMC-Sierra, Inc.	
United States	7373541	5/13/2008	Alignment signal control apparatus and method for operating the same	10800048	3/11/2004	PMC-Sierra, Inc.	
United States	6393576	5/21/2002	Apparatus and method for communication between integrated circuit connected to each other by a single line	08938828	9/29/1997	PMC-Sierra, Inc.	
United States	7376759	5/20/2008	Apparatus for performing device communication and method for operating the same	10782249	2/18/2004	PMC-Sierra, Inc.	
United States	7765502	7/27/2010	ASIC functional specification parser	11241661	9/29/2005	PMC-Sierra, Inc.	
United States	7206953	4/17/2007	Asynchronous fault-tolerant enclosure services interface	10022040	12/17/2001	PMC-Sierra, Inc.	
United States	7702948	4/20/2010	Auto-configuration of RAID systems	10889006	7/13/2004	PMC-Sierra, Inc.	
United States	6754720	6/22/2004	Automatic addressing of expanders in I/O subsystem	09798275	3/2/2001	PMC-Sierra, Inc.	
United States	7770147	8/3/2010	Automatic generators for verilog	11234623	9/22/2005	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			programming				
United States	6378025	4/23/2002	Automatic multi-mode termination	09273401	3/22/1999	PMC-Sierra, Inc.	
United States	6061745	5/9/2000	BBS one BIOS image multiscard support	09133736	8/13/1998	PMC-Sierra, Inc.	
United States	7305603	12/4/2007	Boundary scan cell and methods for integrating and operating the same	10762799	1/21/2004	PMC-Sierra, Inc.	
United States	6477165	11/5/2002	Broadcast command packet protocol for SCSI interface	09097899	6/16/1998	PMC-Sierra, Inc.	
United States	6122689	9/19/2000	Bus termination circuitry and methods for implementing the same	09078346	5/13/1998	PMC-Sierra, Inc.	
United States	7406619	7/29/2008	Cache synchronization in a RAID subsystem using serial attached SCSI and/or serial ATA	11088395	3/23/2005	PMC-Sierra, Inc.	
United States	5768621	6/16/1998	Chain manager for use in executing a chain of I/O command blocks	08616817	3/15/1996	PMC-Sierra, Inc.	
United States	D484136	12/23/2003	Combined USB Hub Device and Stand	29151059	10/24/2001	PMC-Sierra, Inc.	
United States	5931920	8/3/1999	Command interpreter system in an I/O controller	08906369	8/5/1997	PMC-Sierra, Inc.	
United States	6088740	7/11/2000	Command queuing system for a hardware accelerated command interpreter engine	08988016	12/10/1997	PMC-Sierra, Inc.	
United States	6922688	7/26/2005	Computer system storage	09261708	3/3/1999	PMC-Sierra, Inc.	
United States	6718413	4/6/2004	Contention-based methods for generating reduced number of interrupts	09650774	8/29/2000	PMC-Sierra, Inc.	
United States	6725392	4/20/2004	Controller fault recovery system for a distributed file system	09691579	10/18/2000	PMC-Sierra, Inc.	
United States	6145017	11/7/2000	Data alignment system for a hardware accelerated command interpreter engine	09130322	8/7/1998	PMC-Sierra, Inc.	
United States	6021454	2/1/2000	Data transfer between small computer system interface systems	09049522	3/27/1998	PMC-Sierra, Inc.	
United States	6148384	11/14/2000	Decoupled serial memory access with passkey protected memory areas	09089057	6/2/1998	PMC-Sierra, Inc.	
United States	6789134	9/7/2004	Dequeuing from a host adapter two-dimensional queue	10443241	5/21/2003	PMC-Sierra, Inc.	
United States	6938102	8/30/2005	Dequeuing from a host adapter two-dimensional queue	10923596	8/20/2004	PMC-Sierra, Inc.	
United States	7484017	1/27/2009	Dequeuing from a host adapter two-	11170293	6/28/2005	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			dimensional queue				
United States	5748806	5/5/1998	Deskew circuit in a host interface circuit	08486084	6/7/1995	PMC-Sierra, Inc.	
United States	6848022	1/25/2005	Disk array fault tolerant method and system using two-dimensional parity	10263422	10/2/2002	PMC-Sierra, Inc.	
United States	6785746	8/31/2004	Dual-channel SCSI chips and methods for configuring separate interoperability of each channel of the SCSI chip	09680834	10/6/2000	PMC-Sierra, Inc.	
United States	6453428	9/17/2002	Dual-drive fault tolerant method and system for assigning data chunks to column parity sets	09354426	7/16/1999	PMC-Sierra, Inc.	
United States	5701409	12/23/1997	Error generation circuit for testing a digital bus	08392442	2/22/1995	PMC-Sierra, Inc.	
United States	5978934	11/2/1999	Error generation circuit for testing a digital bus	08797802	2/7/1997	PMC-Sierra, Inc.	
United States	6049894	4/11/2000	Error generation circuit for testing a digital bus	09255406	2/22/1999	PMC-Sierra, Inc.	
United States	6862642	3/1/2005	Expander device and method for resetting bus segments in I/O subsystem segmented with expanders	09858321	5/15/2001	PMC-Sierra, Inc.	
United States	6948024	9/20/2005	Expander device for isolating bus segments in I/O subsystem	09846975	5/1/2001	PMC-Sierra, Inc.	
United States	6449709	9/10/2002	Fast stack save and restore system and method	09321329	5/27/1999	PMC-Sierra, Inc.	
United States	6202115	3/13/2001	Fault tolerant redundant bus bridge systems and methods	09062279	4/17/1998	PMC-Sierra, Inc.	
United States	6009478	12/28/1999	File array communications interface for communicating between a host computer and an adapter	08963902	11/4/1997	PMC-Sierra, Inc.	
United States	6219693	4/17/2001	File array storage architecture having file system distributed across a data processing platform	08964304	11/4/1997	PMC-Sierra, Inc.	
United States	6301605	10/9/2001	File array storage architecture having file system distributed across a data processing platform	09677034	9/29/2000	PMC-Sierra, Inc.	
United States	6061250	5/9/2000	Full enclosure chassis system with tool-free access to hot-pluggable circuit	08882170	6/25/1997	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			boards therein				
United States	5642366	6/24/1997	Global parity symbol for interleaved reed-solomon coded data	08270858	7/5/1994	PMC-Sierra, Inc.	
United States	5872799	2/16/1999	Global parity symbol for interleaved reed-solomon coded data	08687009	7/16/1996	PMC-Sierra, Inc.	
United States	6415347	7/2/2002	Hardware attention management circuit and method for parallel SCSI host adapters	09344291	6/30/1999	PMC-Sierra, Inc.	
United States	7016999	3/21/2006	Hardware circuit and method for automatically configuring on-the-fly a sub-unit in a SCSI message	10068650	2/5/2002	PMC-Sierra, Inc.	
United States	6862631	3/1/2005	Hardware I/O control block array for mirrored data transfers	10779351	2/12/2004	PMC-Sierra, Inc.	
United States	6934771	8/23/2005	Hardware I/O control block structure for mirrored and non-mirrored data transfers	10779417	2/12/2004	PMC-Sierra, Inc.	
United States	5867732	2/2/1999	Hardware method for verifying that an area of memory has only zero values	08615478	3/15/1996	PMC-Sierra, Inc.	
United States	6109971	8/29/2000	High-speed serial data cable with improved electromagnetic performance	08887349	7/2/1997	PMC-Sierra, Inc.	
United States	6202105	3/13/2001	Host adapter capable of simultaneously transmitting and receiving data of multiple contexts between a computer bus and peripheral bus	09089274	6/2/1998	PMC-Sierra, Inc.	
United States	6240482	5/29/2001	Host adapter having a plurality of register sets and corresponding operating nodes	09089044	6/2/1998	PMC-Sierra, Inc.	
United States	6298403	10/2/2001	Host adapter having a snapshot mechanism	09089030	6/2/1998	PMC-Sierra, Inc.	
United States	6070200	5/30/2000	Host adapter having paged data buffers for continuously transferring data between a system bus and a peripheral bus	09089311	6/2/1998	PMC-Sierra, Inc.	
United States	6279051	8/21/2001	Host adapter having paged payload buffers for simultaneously transferring data between a computer bus and a peripheral bus	09531869	3/20/2000	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	7024523	4/4/2006	Host adapter integrated data FIFO and data cache and method for improved host adapter sourcing latency	10280955	10/25/2002	PMC-Sierra, Inc.	
United States	5881250	3/9/1999	Host adapter system including an integrated PCI buffer controller and XOR function circuit	08615477	3/15/1996	PMC-Sierra, Inc.	
United States	5978863	11/2/1999	Host adaptor comprising a status switching circuit which couples an output line to a function input line in response to a function enable line signal	08876539	6/9/1997	PMC-Sierra, Inc.	
United States	6526477	2/25/2003	Host-memory based raid system, device, and method	09389954	9/3/1999	PMC-Sierra, Inc.	
United States	5812877	9/22/1998	I/O command block chain structure in a memory	08616846	3/15/1996	PMC-Sierra, Inc.	
United States	6816915	11/9/2004	I/O subsystem topology discovery method	09798100	3/2/2001	PMC-Sierra, Inc.	
United States	7124207	10/17/2006	I2O command and status batching	10640936	8/14/2003	PMC-Sierra, Inc.	
United States	6691160	2/10/2004	Input/output communication networks and booting protocols	09552289	4/19/2000	PMC-Sierra, Inc.	
United States	5826068	10/20/1998	Integrated circuit with a serial port having only one pin	08482529	6/7/1995	PMC-Sierra, Inc.	
United States	5974530	10/26/1999	Integrated PCI buffer controller and XOR function circuit	08942373	10/2/1997	PMC-Sierra, Inc.	
United States	6529989	3/4/2003	Intelligent expansion ROM sharing bus subsystem	09564105	5/3/2000	PMC-Sierra, Inc.	
United States	6182182	1/30/2001	Intelligent input/output target device communication and exception handling	09181712	10/28/1998	PMC-Sierra, Inc.	
United States	6802021	10/5/2004	Intelligent load balancing for a multi-path storage system	09768957	1/23/2001	PMC-Sierra, Inc.	
United States	5946707	8/31/1999	Interleaved burst XOR using a single memory pointer	08808526	2/28/1997	PMC-Sierra, Inc.	
United States	6775832	8/10/2004	Method and apparatus for a layer structure directory for common hardware interface modules	09687623	10/12/2000	PMC-Sierra, Inc.	
United States	6823477	11/23/2004	Method and apparatus for a segregated interface for parameter configuration in a	09768860	1/23/2001	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			multi-path failover system				
United States	7017018	3/21/2006	Method and apparatus for a virtual memory file system	09957097	9/19/2001	PMC-Sierra, Inc.	
United States	7406563	7/29/2008	Method and apparatus for accessing a striped configuration of disks	11054659	2/8/2005	PMC-Sierra, Inc.	
United States	6748459	6/8/2004	Method and apparatus for address mapping	09690120	10/12/2000	PMC-Sierra, Inc.	
United States	7330930	2/12/2008	Method and apparatus for balanced disk access load distribution	11053818	2/8/2005	PMC-Sierra, Inc.	
United States	7085877	8/1/2006	Method and apparatus for combination host bus adapter	10108063	3/26/2002	PMC-Sierra, Inc.	
United States	6192456	2/20/2001	Method and apparatus for creating formatted fat partitions with a hard drive having a BIOS-less controller	09281715	3/30/1999	PMC-Sierra, Inc.	
United States	6023387	2/8/2000	Method and apparatus for determining sector addresses from media having data written in a headerless format	08926303	9/5/1997	PMC-Sierra, Inc.	
United States	7103686	9/5/2006	Method and apparatus for device discovery	09687699	10/12/2000	PMC-Sierra, Inc.	
United States	7089345	8/8/2006	Method and apparatus for dual porting a single port serial ATA disk drive	10131387	4/23/2002	PMC-Sierra, Inc.	
United States	7103891	9/5/2006	Method and apparatus for establishing a profile table for host bus adapters	09687244	10/12/2000	PMC-Sierra, Inc.	
United States	6904497	6/7/2005	Method and apparatus for extending storage functionality at the bios level	09962980	9/21/2001	PMC-Sierra, Inc.	
United States	7360119	4/15/2008	Method and apparatus for handling SAS/SATA communication deadlock	10795183	3/3/2004	PMC-Sierra, Inc.	
United States	5815678	9/29/1998	Method and apparatus for implementing an application programming interface for a communications bus	08503078	7/14/1995	PMC-Sierra, Inc.	
United States	7107343	9/12/2006	Method and apparatus for improved RAID 1 write performance in low cost systems	09904704	7/12/2001	PMC-Sierra, Inc.	
United States	6769071	7/27/2004	Method and apparatus for intelligent failover in a multi-path system	09768859	1/23/2001	PMC-Sierra, Inc.	
United States	6971003	11/29/2005	Method and apparatus for minimizing	10115734	4/2/2002	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			option ROM BIOS code				
United States	6813648	11/2/2004	Method and apparatus for post boot-up domain validation	09898214	7/2/2001	PMC-Sierra, Inc.	
United States	6886074	4/26/2005	Method and apparatus for raid load balancing	10010846	12/5/2001	PMC-Sierra, Inc.	
United States	7293138	11/6/2007	Method and apparatus for raid on memory	10185307	6/27/2002	PMC-Sierra, Inc.	
United States	7549020	6/16/2009	Method and apparatus for raid on memory	11873334	10/16/2007	PMC-Sierra, Inc.	
United States	6985996	1/10/2006	Method and apparatus for relocating RAID meta data	10318587	12/13/2002	PMC-Sierra, Inc.	
United States	6513098	1/28/2003	Method and apparatus for scalable error correction code generation performance	09866110	5/25/2001	PMC-Sierra, Inc.	
United States	6829663	12/7/2004	Method and apparatus for the synchronous control of a serial interface	10225905	8/21/2002	PMC-Sierra, Inc.	
United States	7210090	4/24/2007	Method and apparatus for vendor-specific device communication	10733152	12/10/2003	PMC-Sierra, Inc.	
United States	6158002	12/5/2000	Method and apparatus of boot device switching by a floppy disk	09134760	8/14/1998	PMC-Sierra, Inc.	
United States	6978336	12/20/2005	Method and structure for allocating sites in an expanded SCB array	10002869	12/5/2001	PMC-Sierra, Inc.	
United States	7085864	8/1/2006	Method and structure for handling packetized SCSI protocol data overruns in a multi-data channel host adapter	10186102	6/27/2002	PMC-Sierra, Inc.	
United States	6826646	11/30/2004	Method and structure for supporting data streaming by a SCSI initiator during the data in phase of the packetized SCSI protocol	09745106	12/20/2000	PMC-Sierra, Inc.	
United States	7047327	5/16/2006	Method and structure for supporting flow control by a SCSI initiator during the data out phase of the packetized SCSI protocol	09745035	12/20/2000	PMC-Sierra, Inc.	
United States	6842798	1/11/2005	Method and structure for supporting flow control by a SCSI target during the data out phase of the packetized SCSI protocol	09745036	12/20/2000	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	7188270	3/6/2007	Method and system for a disk fault tolerance in a disk array using rotating parity	10300981	11/21/2002	PMC-Sierra, Inc.	
United States	6845439	1/18/2005	Method and system for accessing an expanded SCB array	09872830	5/31/2001	PMC-Sierra, Inc.	
United States	6996640	2/7/2006	Method and system for asynchronously transferring data	10935013	9/3/2004	PMC-Sierra, Inc.	
United States	6442628	8/27/2002	Method and system for automatically determining maximum data throughput over a bus	09300818	4/27/1999	PMC-Sierra, Inc.	
United States	7062604	6/13/2006	Method and system for five-disk fault tolerance in a disk array	10365382	2/12/2003	PMC-Sierra, Inc.	
United States	6769037	7/27/2004	Method and system for flow control during the data out phase of the packetized SCSI protocol	09745034	12/20/2000	PMC-Sierra, Inc.	
United States	7093159	8/15/2006	Method and system for four disk fault tolerance in a disk array	10317493	12/12/2002	PMC-Sierra, Inc.	
United States	6466973	10/15/2002	Method and system for managing storage devices over a network	09036615	3/6/1998	PMC-Sierra, Inc.	
United States	6792391	9/14/2004	Method and system for three disk fault tolerance in a disk array	10295726	11/15/2002	PMC-Sierra, Inc.	
United States	6934770	8/23/2005	Method for aborting data transfer commands	10429005	5/1/2003	PMC-Sierra, Inc.	
United States	5564023	10/8/1996	Method for accessing a sequencer control block by a host adapter integrated circuit	08269463	6/30/1994	PMC-Sierra, Inc.	
United States	7219257	5/15/2007	Method for boot recovery	10608312	6/27/2003	PMC-Sierra, Inc.	
United States	7480819	1/20/2009	Method for boot recovery	11677491	2/21/2007	PMC-Sierra, Inc.	
United States	5892969	4/6/1999	Method for concurrently executing a configured string of concurrent I/O command blocks within a chain to perform a raid 5 I/O operation	08615479	3/15/1996	PMC-Sierra, Inc.	
United States	6871238	3/22/2005	Method for configuring a single hardware I/O control block architecture for use with both mirrored and non-mirrored data transfers	10779416	2/12/2004	PMC-Sierra, Inc.	
United States	5758187	5/26/1998	Method for enhancing performance of a	08616838	3/15/1996	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			RAID 1 read operation using a pair of I/O command blocks in a chain structure				
United States	6282647	8/28/2001	Method for flashing a read only memory (ROM) chip of a host adapter with updated option ROM bios code	09324347	6/2/1999	PMC-Sierra, Inc.	
United States	7234047	6/19/2007	Method for managing memory space during system initialization	10133812	4/24/2002	PMC-Sierra, Inc.	
United States	7565521	7/21/2009	Method for managing memory space during system initialization	11801650	5/9/2007	PMC-Sierra, Inc.	
United States	7007158	2/28/2006	Method for providing a configuration extensible markup language (XML) page to a user for configuring an XML based storage handling controller	10077466	2/14/2002	PMC-Sierra, Inc.	
United States	5752083	5/12/1998	Method for receiving a first SCSI command, subsequent receiving second SCSI command and starting data transfer, reconnecting and performing data transfer for first SCSI command	08463617	6/5/1995	PMC-Sierra, Inc.	
United States	6105130	8/15/2000	Method for selectively booting from a desired peripheral device	09016764	1/30/1998	PMC-Sierra, Inc.	
United States	5923896	7/13/1999	Method for sequencing execution of I/O command blocks in a chain structure by setting hold-off flags and configuring a counter in each I/O command block	08617990	3/15/1996	PMC-Sierra, Inc.	
United States	6988166	1/17/2006	Method for snooping raid 1 read transactions by a storage device	10210594	7/31/2002	PMC-Sierra, Inc.	
United States	7080198	7/18/2006	Method for snooping RAID 1 write transactions by a storage device	10210250	7/31/2002	PMC-Sierra, Inc.	
United States	5850567	12/15/1998	Method for specifying concurrent execution of a string of I/O command blocks in a chain structure	08615476	3/15/1996	PMC-Sierra, Inc.	
United States	6157964	12/5/2000	Method for specifying concurrent execution of a string of I/O command blocks in a chain structure	09205142	12/3/1998	PMC-Sierra, Inc.	
United States	5797034	8/18/1998	Method for specifying execution of only one of a pair of I/O command blocks in a chain structure	08616836	3/15/1996	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	6567911	5/20/2003	Method of conserving memory resources during execution of system BIOS	09455301	12/6/1999	PMC-Sierra, Inc.	
United States	5991861	11/23/1999	Method of enabling and disabling a data function in an integrated circuit	08617991	3/15/1996	PMC-Sierra, Inc.	
United States	5603066	2/11/1997	Method of flagging the completion of a second command before the completion of a first command from the same initiator in a SCSI controller	08463649	6/5/1995	PMC-Sierra, Inc.	
United States	5838950	11/17/1998	Method of operation of a host adapter integrated circuit	08486096	6/7/1995	PMC-Sierra, Inc.	
United States	7167999	1/23/2007	Methods and apparatus for a segregated interface for parameter configuration in multi-path failover system	10975275	10/27/2004	PMC-Sierra, Inc.	
United States	6003017	12/14/1999	Methods and apparatuses for automatic bank switching in a host adapter memory	08866427	5/30/1997	PMC-Sierra, Inc.	
United States	6751693	6/15/2004	Methods for assigning addresses to expanded devices in I/O subsystem	09798278	3/2/2001	PMC-Sierra, Inc.	
United States	6880033	4/12/2005	Methods for configuring separate accessibility of each channel of a dual channel SCSI chip	10125238	4/17/2002	PMC-Sierra, Inc.	
United States	7234053	6/19/2007	Methods for expansive netboot	10712710	11/12/2003	PMC-Sierra, Inc.	
United States	7149978	12/12/2006	Methods for managing host adapter settings	09752504	12/27/2000	PMC-Sierra, Inc.	
United States	6865669	3/8/2005	Methods for optimizing memory resources during initialization routines of a computer system	09910580	7/20/2001	PMC-Sierra, Inc.	
United States	6769021	7/27/2004	Methods for partitioning end nodes in a network fabric	09613174	7/10/2000	PMC-Sierra, Inc.	
United States	7210001	4/24/2007	Methods of and apparatus for efficient buffer cache utilization	10825717	4/16/2004	PMC-Sierra, Inc.	
United States	6154067	11/28/2000	Methods of and apparatus for monitoring the termination status of a SCSI bus	09130196	8/5/1998	PMC-Sierra, Inc.	
United States	6446139	9/3/2002	Multiple chip single image BIOS	09340539	6/28/1999	PMC-Sierra, Inc.	
United States	7711793	5/4/2010	No single point of failure RAID box using SATA drives	10665846	9/17/2003	PMC-Sierra, Inc.	
United States	6742137	5/25/2004	Object oriented fault tolerance	09376773	8/17/1999	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	6814588	11/9/2004	Overmold cable terminator	10010512	12/5/2001	PMC-Sierra, Inc.	
United States	6801975	10/5/2004	Parallel SCSI host adapter and method for fast capture of shadow state data	10002887	12/5/2001	PMC-Sierra, Inc.	
United States	5692134	11/25/1997	Preserving configuration information in a SCAM based SCSI system	08532919	9/22/1995	PMC-Sierra, Inc.	
United States	7086025	8/1/2006	Programmable logic device partitioning method for application specific integrated circuit prototyping	10693285	10/23/2003	PMC-Sierra, Inc.	
United States	5659690	8/19/1997	Programmably configurable host adapter integrated circuit including a RISC processor	07964532	10/15/1992	PMC-Sierra, Inc.	
United States	6058436	5/2/2000	Quick arbitration and select (QAS) protocol in SCSI interface for configuring a current target device to assert a QAS message code during a message-in phase	09098214	6/16/1998	PMC-Sierra, Inc.	
United States	6728791	4/27/2004	RAID 1 read mirroring method for host adapters	10051960	1/16/2002	PMC-Sierra, Inc.	
United States	6701385	3/2/2004	Raid 1 write mirroring method for host adapters	10051907	1/16/2002	PMC-Sierra, Inc.	
United States	7149847	12/12/2006	RAID 6 disk array architectures	11064392	2/23/2005	PMC-Sierra, Inc.	
United States	7103716	9/5/2006	RAID 6 disk array with prime number minus one disks	10607381	6/26/2003	PMC-Sierra, Inc.	
United States	6353895	3/5/2002	RAID architecture with two-drive fault tolerance	09250657	2/16/1999	PMC-Sierra, Inc.	
United States	5991844	11/23/1999	Redundant bus bridge systems and methods using selectively synchronized clock signals	09062282	4/17/1998	PMC-Sierra, Inc.	
United States	6105075	8/15/2000	Scatter gather memory system for a hardware accelerated command interpreter engine	09083569	5/22/1998	PMC-Sierra, Inc.	
United States	6173344	1/9/2001	SCSI bus transceiver and method for making the same	09085671	5/27/1998	PMC-Sierra, Inc.	
United States	5504868	4/2/1996	SCSI command descriptor block parsing state machine	08205003	3/1/1994	PMC-Sierra, Inc.	
United States	5655147	8/5/1997	SCSI host adapter integrated circuit	08229864	4/19/1994	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			utilizing a sequencer circuit to control at least one non-data SCSI phase without use of any processor				
United States	6535936	3/18/2003	SCSI phase status register for use in reducing instructions executed by an on-chip sequencer in asserting a SCSI acknowledge signal and method	09343324	6/30/1999	PMC-Sierra, Inc.	
United States	6516366	2/4/2003	Serial bus for connecting two integrated circuits with storage for input/output signals	09580514	5/25/2000	PMC-Sierra, Inc.	
United States	6381688	4/30/2002	Serial port for a hose adapter integrated circuit using a single terminal	09579863	5/25/2000	PMC-Sierra, Inc.	
United States	5920708	7/6/1999	Serial port having only a single terminal for information transfer to and from an integrated circuit	08592800	1/26/1996	PMC-Sierra, Inc.	
United States	6201829	3/13/2001	Serial/parallel GHZ transceiver with pseudo-random built in self test pattern generator	09055197	4/3/1998	PMC-Sierra, Inc.	
United States	5896406	4/20/1999	Shift register-based XOR accumulator engine for generating parity in a data processing system	08829044	3/31/1997	PMC-Sierra, Inc.	
United States	7249201	7/24/2007	Single driver for multifunctional SCSI chips	10850203	5/19/2004	PMC-Sierra, Inc.	
United States	6970986	11/29/2005	Software based system and method for I/O chip hiding of processor based controllers from operating system	10153549	5/21/2002	PMC-Sierra, Inc.	
United States	6157971	12/5/2000	Source-destination re-timed cooperative communication bus	09088812	6/2/1998	PMC-Sierra, Inc.	
United States	6799293	9/28/2004	Sparse byte enable indicator for high speed memory access arbitration method and apparatus	09884270	6/19/2001	PMC-Sierra, Inc.	
United States	5657455	8/12/1997	Status indicator for a host adapter	08301458	9/7/1994	PMC-Sierra, Inc.	
United States	7107534	9/12/2006	Storage area network administration	09275727	3/24/1999	PMC-Sierra, Inc.	
United States	7062501	6/13/2006	Structure and method for linking scatter/gather list segments for host adapters	09925135	8/8/2001	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	6804739	10/12/2004	Structure and method for message snooping in SCSI bus expanders	10068651	2/5/2002	PMC-Sierra, Inc.	
United States	7028117	4/11/2006	Structure for handling packetized SCSI protocol data overruns in a multi-data channel host adapter	10185875	6/27/2002	PMC-Sierra, Inc.	
United States	6510491	1/21/2003	System and method for accomplishing data storage migration between raid levels	09465057	12/16/1999	PMC-Sierra, Inc.	
United States	7600132	10/6/2009	System and method for authentication of embedded RAID on a motherboard	10740971	12/19/2003	PMC-Sierra, Inc.	
United States	7502942	3/10/2009	System and method for authentication of embedded raid on a motherboard having input/output processor	10741234	12/19/2003	PMC-Sierra, Inc.	
United States	6460054	10/1/2002	System and method for data storage archive bit update after snapshot backup	09464250	12/16/1999	PMC-Sierra, Inc.	
United States	6513142	1/28/2003	System and method for detecting of unchanged parity data	09604203	6/27/2000	PMC-Sierra, Inc.	
United States	6502169	12/31/2002	System and method for detection of disk storage blocks containing unique values	09604348	6/27/2000	PMC-Sierra, Inc.	
United States	7127002	10/24/2006	System and method for frequency and phase modulating data on a SCSI bus or a serial SCSI link	10226587	8/23/2002	PMC-Sierra, Inc.	
United States	6542960	4/1/2003	System and method for parity caching based on stripe locking in raid data storage	09464127	12/16/1999	PMC-Sierra, Inc.	
United States	6061770	5/9/2000	System and method for real-time data backup using snapshot copying with selective compaction of backup data	08963754	11/4/1997	PMC-Sierra, Inc.	
United States	6425053	7/23/2002	System and method for zeroing data storage blocks in a raid storage implementation	09604347	6/27/2000	PMC-Sierra, Inc.	
United States	5905905	5/18/1999	System for copying IOBS from FIFO into I/O adapter, writing data completed IOB, and invalidating completed IOB in FIFO for reuse of FIFO	08906765	8/5/1997	PMC-Sierra, Inc.	
United States	6065066	5/16/2000	System for data stream packer and unpacker integrated circuit which align	09089039	6/2/1998	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			data stored in a two level latch				
United States	5640593	6/17/1997	System for generating second interrupt signal for data transfer completion for a first SCSI data transfer command that is not autotransfer	08462719	6/5/1995	PMC-Sierra, Inc.	
United States	5634081	5/27/1997	System for starting and completing a data transfer for a subsequently received autotransfer command after receiving a first SCSI data transfer command that is not autotransfer	08205002	3/1/1994	PMC-Sierra, Inc.	
United States	5781803	7/14/1998	System for storing initiator, queue tag and logical block information, disconnecting from target if command is not auto transfer, reconnecting and performing data transfer	08465075	6/5/1995	PMC-Sierra, Inc.	
United States	5845154	12/1/1998	System for supplying initiator identification information to SCSI bus in a reselection phase of an initiator before completion of an autotransfer command	08463333	6/5/1995	PMC-Sierra, Inc.	
United States	6832271	12/14/2004	Systems and methods for monitoring and displaying I/O data for plurality of I/O devices	10155814	5/23/2002	PMC-Sierra, Inc.	
United States	6609161	8/19/2003	Two-dimensional execution queue for host adapters	09587538	6/1/2000	PMC-Sierra, Inc.	
United States	6742053	5/25/2004	Two-dimensional execution queue for host adapters	10295618	11/14/2002	PMC-Sierra, Inc.	
United States	6124551	9/26/2000	Ultra thin and flexible SCSI cable and method for making the same	09299688	4/26/1999	PMC-Sierra, Inc.	
United States	6425079	7/23/2002	Universal option ROM BIOS including multiple option BIOS images for multichip support and boot sequence for use therewith	09282919	3/31/1999	PMC-Sierra, Inc.	
United States	7181562	2/20/2007	Wired endian method and apparatus for performing the same	10816338	3/31/2004	PMC-Sierra, Inc.	
United States	6084739	7/4/2000	Write synchronization system on a headerless format magnetic disk device	08829432	3/31/1997	PMC-Sierra, Inc.	
United States	7016971	3/21/2006	Congestion management in a distributed	09980760	4/15/2002	Hewlett-Packard	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			computer system multiplying current variable injection rate with a constant to set new variable injection rate at source node			Development Company, L.P.; IBM Corporation; Compaq Computer Corporation; PMC-Sierra, Inc.	
United States			Additive-white-gaussian-noise generation on an fpga or asic	61792124	3/15/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc. ¹
United States			Alternate equation formulation ldpc decoders	61782263	3/14/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Alternate equation formulation ldpc decoders	13860300	4/10/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Apparatus and method for accumulating soft information in an ldpc decoder	61794750	3/15/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Apparatus and method for adjusting a correctable raw bit error rate limit in a memory system using strong log-likelihood (llr) values	13752757	1/29/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	6937621	8/30/2005	Apparatus and method for determining byte gain and loss adjustments in a sonet/sdh network element	09790301	2/21/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	6993028	1/31/2006	Apparatus and method for reordering sequence indicated information into proper sequence	09905394	7/13/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Attenuation factor matrix for layered min-sum ldpc	13785848	3/5/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7676713	3/9/2010	Automated device testing using intertwined Stimulus-generation and response validation Specifications for managing dut's that generate out-of-Order responses	11261256	10/28/2005	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.

¹ The Company is in the process of recording certain intellectual property in the name of the Grantor that owns such intellectual property. Certain filings may occur prior to the Closing Date.

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	7058070	6/6/2006	Back pressure control system for network switch port	09847079	5/1/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8397144	3/12/2013	Bch data correction system and method	12913716	10/27/2010	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7454554	11/18/2008	Binary base address search device and method	11395715	3/31/2006	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7647438	1/12/2010	Binary base address sorting method and device with shill ector	11382480	5/9/2006	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	6598132	7/22/2003	Buffer manager for network switch port	09908616	7/18/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8174969	5/8/2012	Congestion management for a packet switch	12625491	11/24/2009	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8285884	10/9/2012	Data aggregation system and method for deskewing data at selectable data Rates	12264184	11/3/2008	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7779197	8/17/2010	Device and method for address matching with post matching limit check and nullification	111382475	5/9/2006	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7756014	7/13/2010	Device and method for handling catastrophic routing	11677697	2/22/2007	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7634586	12/15/2009	Device for concurrent limit validity check	11422190	6/5/2006	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Ecc architecture for very reliable ssds	13435572	3/30/2012	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Ecc architecture for very reliable ssds	61585627	1/11/2012	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Ecc architecture for very reliable ssds	13434770	3/29/2012	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Ecc-raid combination for enhanced ssd reliability	13023336	2/8/2011	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8234424	7/31/2012	Efficient strip-down and re-alignment of ingress physical layer/data layer packets in an aggregated pci-express port having eight lanes	11450899	6/8/2006	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Enterprise flash controller	61374242	8/16/2010	PMC-Sierra US, Inc.	Integrated Device

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
							Technology, Inc.
United States	7334071	2/19/2008	Expansion of cross- domain addressing For pci-express Packets passing Through non-transparent bridge	11138853	5/25/2005	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	6687781	2/3/2004	Fair weighted queuing bandwidth allocation system for network switch Port	09847078	5/1/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Flash management algorithms for improving read stress endurance	13287443	11/2/2011	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			High performance bch error correction circuits	61374216	8/16/2010	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8391302	3/5/2013	High-performance ingress buffer for a packet switch	12630811	12/3/2009	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Improving ldpc error correction capability through trapping-set avoidance	61781873	3/14/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Improving ldpc error correction capability through trapping-set avoidance	13860411	4/10/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7852867	12/14/2010	Integrated memory for storing egressing packet data, reply data and to-be egressed data	11854076	9/12/2007	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7773591	8/10/2010	Integrated memory for storing egressing packet data, reply data and to-be egressed data	11774457	7/6/2007	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Interrupt technique for a nonvolatile memory controller	13052388	3/21/2011	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Method and apparatus for a flexible routing engine for a pcie switch.	13743225	1/16/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Method and apparatus for achieving pci express equalization procedure in a retimer	13195685	8/1/2011	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Method and apparatus for an aggregated non transparent requestor id translation for a pcie switch	13681257	11/19/2012	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7787378	8/31/2010	Method and apparatus for conversion of	11854495	9/12/2007	PMC-Sierra US, Inc.	Integrated Device

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			an arbitration table into count values to control the distribution of Resources				Technology, Inc.
United States			Method and apparatus for mapped io routing for aPcie switch	13750991	1/25/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8429325	4/23/2013	Method and apparatus for multi-port non-transparent Pci express switching	12852399	8/6/2010	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7006518	2/28/2006	Method and apparatus for scheduling static and dynamic traffic through a switch fabric	09865258	5/25/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Method and apparatus for translated routing for a pcie witch	13743281	1/16/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7694025	4/6/2010	Method and device for base address sorting and entry into base address Registers	11395918	3/31/2006	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7734977	6/8/2010	Method and system for error correction over Serial link	10835711	4/29/2004	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	6748567	6/8/2004	Method and system for error correction over serial link	09846875	5/1/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Method of improving over protocol-required scheduling tables while maintaining same	11643465	12/20/2006	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7792014	9/7/2010	Method of skipping nullified packets during mass replay from replay buffer	11863727	9/28/2007	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Method of tracking arrival Order of packets into plural queues	12200062	8/28/2008	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7110405	9/19/2006	Multicast cell buffer for network switch	09955615	9/18/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8161210	4/17/2012	Multi-queue system and method for Deskewing symbols in data streams	12264158	11/3/2008	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7079485	7/18/2006	Multiservice switching system with distributed Switch fabric	09847711	5/1/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7058057	6/6/2006	Network switch port Traffic manager having configurable Packet and cell Servicing	09847077	5/1/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7203170	4/10/2007	Network switch port with weighted	09847076	5/1/2001	PMC-Sierra US, Inc.	Integrated Device

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			random early discard				Technology, Inc.
United States			Non-uniform threshold partitioning for ldpc	13792831	3/11/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Nonvolatile memory controller with enterprise nonvolatile memory host controller interface (envmhci)	13052008	3/18/2011	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Optimal threshold placement for ldpc	61792591	3/15/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8284790	10/9/2012	Packet switch with enqueue structure for ordering packets	12701472	2/5/2010	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8255599	8/28/2012	Packets transfer device having data absorbing buffers with elastic buffer capacities	11390754	3/28/2006	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8437369	5/7/2013	Packets transfer device that intelligently accounts for Variable egress channel widths when scheduling use of dispatch bus by egressing packet streams (aka: read Thread engineer (rte))	11437082	5/19/2006	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Phi function approximation in ldpc decode circuits	13797444	3/12/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8400915	3/19/2013	Pipeline scheduler for a packet switch	12710592	2/23/2010	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8295293	10/23/2012	Predictive flow control for a packet switch	12639938	12/16/2009	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7848319	12/7/2010	Programmably sliceable switch-fabric unit and method of use	11830453	7/30/2007	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7263097	8/28/2007	Programmably sliceable switch-fabric unit and method of use	09997478	11/26/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Shuffler ecc for enterprise-class solid state disks	13330573	12/19/2011	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Smart soft info	61793198	3/15/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7995696	8/9/2011	System and method for deskewing data transmitted through data lanes	12188195	8/7/2008	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	8327243	12/4/2012	System and method for generating	12857391	8/16/2010	PMC-Sierra US, Inc.	Integrated Device

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			locator polynomials				Technology, Inc.
United States			System and method for generating parity data in a nonvolatile memory controller by using a distributed processing technique	13052835	3/21/2011	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			System and method for routing a data message	13107265	5/13/2011	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	6959002	10/25/2005	Traffic manager for network switch port	09908614	7/18/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States			Variable code rate ldpc engine	13752885	1/29/2013	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7356722	4/8/2008	Variably delayable transmission of packets between independently clocked source, intermediate and destination circuits while maintaining orderly and timely processing in one or both of the intermediate and destination circuits	11699737	1/29/2007	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	7181485	2/20/2007	Variably delayable transmission of packets between independently clocked source, intermediate and destination circuits while maintaining orderly and timely processing in one or both of the intermediate and destination circuits	09997507	11/26/2001	PMC-Sierra US, Inc.	Integrated Device Technology, Inc.
United States	6603776	8/5/2003	System for efficient broadband data payload conversion	09286211	4/5/1999	Lucent Technologies, Inc. & PMC-Sierra, Inc.	
United States	6134218	10/17/2000	Many dimensional congestion detection system and method	08970882	11/14/1997	PMC-Sierra US, Inc.	
United States	6226298	5/1/2001	Method and apparatus for detecting disabled physical devices and deleting undeliverable cells	09067705	4/28/1998	PMC-Sierra US, Inc.	
United States	6147997	11/14/2000	Mechanism to support an UTOPIA interface over a backplane	08965737	11/7/1997	PMC-Sierra US, Inc.; Hewlett-Packard Development Company, L.P.	
United States	7079575	18-Jul-06	Equalization for crosspoint switches	10066019	01/30/2002	PMC-Sierra US Inc.	
United States	7043569	9-May-06	Method and system for configuring an	09948924	09/07/2001	PMC-Sierra US Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			interconnect device				
United States			A new method to achieve synchronized link initialization with a far end device over optical cable	13829367	3/15/2013	PMC-Sierra US, Inc.	
United States			A Post-Distortion Decision Feedback Equalizer for Reducing Sensitivity to Receiver Nonlinearities	13662282	10/26/2012	PMC-Sierra US, Inc.	
United States			A Solid-State Drive (SSD) Memory Controller Configured to Communicate with a Plurality of Memory Arrays in Which Parity Bits for Error Corrective Code Are Distributed	13477601	5/22/2012	PMC-Sierra US, Inc.	
United States			A Solid-State Drive (SSD) Memory Controller Configured to Store Error Correcting Code Redundantly Such that a First ECC Coders a First Range of Data	13477568	5/22/2012	PMC-Sierra US, Inc.	
United States			A Solid-State Drive (SSD) Memory Controller Configured to Store Error Correcting Code Redundantly Such that a First ECC Coders a First Range of Data	13477598	5/22/2012	PMC-Sierra US, Inc.	
United States			A Solid-State Drive (SSD) Memory Controller Configured to Store Error Correcting Code Redundantly Such that a First ECC Coders a First Range of Data	13477595	5/22/2012	PMC-Sierra US, Inc.	
United States			A Solid-State Drive (SSD) Memory Controller Configured to use a Journaling File System that is Transparent to the Host Such that Rather than the Usual Read, Modify, Erase, Write	13477845	5/22/2012	PMC-Sierra US, Inc.	
United States			A Solid-State Drive (SSD) Memory Controller Configured to use a Journaling File System that is Transparent to the Host Such that Rather than the Usual Read, Modify, Erase, Write	13477599	5/22/2012	PMC-Sierra US, Inc.	
United States			A Solid-State Drive (SSD) Memory	13477633	5/22/2012	PMC-Sierra US, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			Controller THAT MANAGES Error for Controlled Flash Memory Devices by page stripe (Pages having the same address across multiple devices				
United States			A Solid-State Drive (SSD) Memory Controller THAT MANAGES Error for Controlled Flash Memory Devices by page stripe (Pages having the same address across multiple devices	13477629	5/22/2012	PMC-Sierra US, Inc.	
United States			A Solid-State Drive (SSD) Memory Controller THAT MANAGES Error for Controlled Flash Memory Devices by page stripe (Pages having the same address across multiple devices	13477600	5/22/2012	PMC-Sierra US, Inc.	
United States			Adaptive Quality of Service for SAS Links	13406390	2/27/2012	PMC-Sierra US, Inc.	
United States			Adaptively Intelligent I/O Controller and Associated Method	12558925	9/14/2009	PMC-Sierra US, Inc.	
United States			An Observation Path Linear Transfer Function Characterization and Equalization Technique for use with Non-Linear Amplifier Pre-Distortion	13842611	3/15/2013	PMC-Sierra US, Inc.	
United States	7802167	9/21/2010	Apparatus and method for detecting extended error bursts	11669479	1/15/2010	PMC-Sierra US, Inc.	
United States			Apparatus and Method for Modulating a Laser Beam and Sensing the Optical Power Thereof	13912514	6/7/2013	PMC-Sierra US, Inc.	
United States	7209478	4/24/2007	Apparatus and methods for dynamic reallocation of virtual lane buffer space in an infiniband switch	10160938	5/31/2002	PMC-Sierra US, Inc.	
United States	7149221	12/12/2006	Apparatus and methods for increasing bandwidth in an infiniband switch	10160793	5/31/2002	PMC-Sierra US, Inc.	
United States	8127059	2/28/2012	Apparatus for interconnecting hosts with storage devices	11470112	9/5/2006	PMC-Sierra US, Inc.	
United States	7979615	7/12/2011	Apparatus for masked arbitration between masters and requestors and method for operating the same	11152993	6/14/2005	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	7975086	7/5/2011	Apparatus for real-time arbitration between masters and requestors and method for operating the same	11152965	6/14/2005	PMC-Sierra, Inc.	
United States			Boot Device with Selectable Module Images and Method for Booting a Computer System with Such a Device	10614413	7/7/2003	PMC-Sierra US, Inc.	
United States	6904507	6/7/2005	Buffer management architecture and method for an infiniband subnetwork	10261146	9/30/2002	PMC-Sierra US, Inc.	
United States	8095722	1/10/2012	Connection management in serial attached SCSI (SAS) expanders	12507859	7/23/2009	PMC-Sierra US, Inc.	
United States			Controlled Discovery of SAN-Attached SCSI Devices and Access Control Via Login Authentication	12053228	3/21/2008	PMC-Sierra US, Inc.	
United States	8261167	9/4/2012	Cyclically interleaved dual BCH, with simultaneous decode and per-codeword maximum likelihood reconciliation	12720487	3/9/2010	PMC-Sierra US, Inc.	
United States	8386897	2/26/2013	Cyclically interleaved dual BCH, with simultaneous decode and per-codeword maximum likelihood reconciliation	13483640	5/30/2012	PMC-Sierra US, Inc.	
United States	8479084	7/2/2013	Cyclically interleaved dual BCH, with simultaneous decode and per-codeword maximum likelihood reconciliation	13716986	12/17/2012	PMC-Sierra US, Inc.	
United States	7876866	1/25/2011	Data subset selection algorithm for reducing data-pattern autocorrelations	11339554	1/26/2006	PMC-Sierra US, Inc.	
United States	7940667	5/10/2011	Delay measurements and calibration methods and apparatus for distributed wireless systems	11829403	7/27/2007	PMC-Sierra US, Inc.	
United States			De-multiplexing of Low-Order ODUj from High-Order ODUk in an Optical Transport Network (OTN)	13837798	3/15/2013	PMC-Sierra US, Inc.	
United States	8176252	5/8/2012	DMA address translation scheme and cache with modified scatter gather element including SG list and descriptor tables	12203455	9/3/2008	PMC-Sierra US, Inc.	
United States	8467436	6/18/2013	DSP-based diagnostics for monitoring a serdes link	12627667	11/30/2009	PMC-Sierra US, Inc.	
United States	8085764	12/27/2011	Egress selection switch architecture with	12175243	7/17/2008	PMC-Sierra US, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			power management				
United States			Enhanced Adaptive IDDQ Measurement	13720857	12/19/2012	PMC-Sierra US, Inc.	
United States			Equalization adaptation methods using timing detector	13830841	3/14/2013	PMC-Sierra US, Inc.	
United States			Equalizer for heavily clipped or compressed communications signals	13867886	4/22/2013	PMC-Sierra US, Inc.	
United States	7936673	5/3/2011	Feedback priority modulation rate controller	11380760	4/28/2006	PMC-Sierra US, Inc.	
United States	6425034	7/23/2002	Fibre channel controller having both inbound and outbound control units for simultaneously processing both multiple inbound and outbound sequences	09183164	10/30/1998	PMC-Sierra US, Inc.	
United States	6791989	9/14/2004	Fibre channel interface controller that performs non-blocking output and input of fibre channel data frames and acknowledgement frames to and from a fibre channel	09474945	12/30/1999	PMC-Sierra US, Inc.	
United States	6470026	10/22/2002	Fibre channel loop map initialization protocol implemented in hardware	09183580	10/30/1998	PMC-Sierra US, Inc.	
United States			Fractional-N PLL Near-Integer Spur Mitigation through Tone-based Dither Sequences	13781100	2/28/2013	PMC-Sierra US, Inc.	
United States			Frame Delineation Method for a Generic Framing Procedure	13836983	3/15/2013	PMC-Sierra US, Inc.	
United States	8099655	1/17/2012	Galois field multiplier system and method	11961494	12/20/2007	PMC-Sierra US, Inc.	
United States			Generic Multiplexing Procedure Control	13689532	11/29/2012	PMC-Sierra US, Inc.	
United States			GFP Frame Filtering	13839249	3/15/2013	PMC-Sierra US, Inc.	
United States			Hard Disk Drive with Attached Solid State Drive Cache	13455058	4/24/2012	PMC-Sierra US, Inc.	
United States			High Bandwidth GFP Demapper	13839961	3/15/2013	PMC-Sierra US, Inc.	
United States			High-speed gain and phase recovery in presence of strong phase noise	13798970	3/13/2013	PMC-Sierra US, Inc.	
United States	7860941	12/28/2010	Infiniband layer 4 router and methods for implementing same in an infiniband based external storage device	10198337	7/17/2002	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States			Interleaved Digital to Analog Conversion	13624719	9/21/2012	PMC-Sierra US, Inc.	
United States			Justification Insertion and Removal in Generic Mapping Procedure in an Optical Transport Network	13836100	3/15/2013	PMC-Sierra US, Inc.	
United States			Linearizing the full radio TX-RX link with adaptive decompression.	13740113	1/11/2013	PMC-Sierra US, Inc.	
United States	7956704	6/7/2011	Loaded parallel stub common mode filter for differential lines carrying high rate digital signals	12038433	2/27/2008	PMC-Sierra US, Inc.	
United States	7877524	1/25/2011	Logical address direct memory access with multiple concurrent physical ports and internal switching	12277194	11/24/2008	PMC-Sierra US, Inc.	
United States	8271700	9/18/2012	Logical address direct memory access with multiple concurrent physical ports and internal switching	13012296	1/24/2011	PMC-Sierra US, Inc.	
United States			Low-cost Communications Infrastructure for APS Controllers and Overhead Managers	13830231	3/15/2013	PMC-Sierra US, Inc.	
United States	7812693	10/12/2010	Lowpass-bandstop common mode filter for differential lines carrying high rate digital signals	12038503	2/27/2008	PMC-Sierra US, Inc.	
United States	8116226	2/14/2012	Method and apparatus for broadcast primitive filtering in SAS	11341574	1/30/2006	PMC-Sierra US, Inc.	
United States			Method and apparatus for Changing the Gain of a Radio Frequency Signal	13795742	3/12/2013	PMC-Sierra US, Inc.	
United States	7860103	12/28/2010	Method and apparatus for extended addressing in a fiber channel arbitrated loop	11693939	3/30/2007	PMC-Sierra US, Inc.	
United States	8483226	7/9/2013	Method and apparatus for extended addressing in a fiber channel arbitrated loop	12973275	12/20/2010	PMC-Sierra US, Inc.	
United States	7958295	6/7/2011	Method and apparatus for finding subset maxima and minima in SAS expanders and related devices	11389025	3/27/2006	PMC-Sierra US, Inc.	
United States	6510509	1/21/2003	Method and apparatus for high-speed network rule processing	09280235	3/29/1999	PMC-Sierra US, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	7231444	6/12/2007	Method and management port for an indirect loop protocol associated with an interconnect device	09948875	9/7/2001	PMC-Sierra US, Inc.	
United States	8024142	9/20/2011	Method and system for analyzing signal waveforms	11961543	12/20/2007	PMC-Sierra, Inc.	
United States	7296096	11/13/2007	Method and system for configuring an interconnect device	11173167	7/1/2005	PMC-Sierra US, Inc.	
United States	6578096	6/10/2003	Method and system for efficient I/O operation completion in a fibre channel node	09475907	12/30/1999	PMC-Sierra US, Inc.	
United States	6526458	2/25/2003	Method and system for efficient I/O operation completion in a fibre channel node using an application specific integration circuit and determining I/O operation completion status within interface controller	09475908	12/30/1999	PMC-Sierra US, Inc.	
United States			Method and System for Interlocking Multiple Processors Through an Atomic Register Set	11241494	9/29/2005	PMC-Sierra US, Inc.	
United States	6477171	11/5/2002	Method and system for negotiation of the highest common link rate among nodes of a fibre channel arbitrated loop	09452618	12/1/1999	PMC-Sierra US, Inc.	
United States			Method and system for Transporting Constant Bit Rate Clients Across a Packet Interface	13843459	3/15/2013	PMC-Sierra US, Inc.	
United States	7150021	12/12/2006	Method and system to allocate resources within an interconnect device according to a resource allocation table	09977511	10/12/2001	PMC-Sierra US, Inc.	
United States	7237016	6/26/2007	Method and system to manage resource requests utilizing link-list queues within an arbiter associated with an interconnect device	09949367	9/7/2001	PMC-Sierra US, Inc.	
United States	6839794	1/4/2005	Method and system to map a service level associated with a packet to one of a number of data streams at an interconnect device	09977529	10/12/2001	PMC-Sierra US, Inc.	
United States			Method to Trigger Balanced FBAR-	13909739	6/4/2013	PMC-Sierra US, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			oscillation				
United States			Methods for achieving and maintaining phase alignment between multiple signal sources in MIMO systems	13902511	5/24/2013	PMC-Sierra US, Inc.	
United States			Methods for Dedicated Netboot	10850161	5/19/2004	PMC-Sierra US, Inc.	
United States			Multi-Mode Driver with Multiple Transmitter Types	13154370	6/6/2011	PMC-Sierra US, Inc.	
United States	7877581	1/25/2011	Networked processor for a pipeline architecture	10726470	12/2/2003	PMC-Sierra, Inc.	
United States			Optical Data Unit Multiplexing and Demultiplexing	13835443	3/15/2013	PMC-Sierra US, Inc.	
United States	6314477	11/6/2001	Performance of fibre channel protocol sequence reassembly using expected frame information and buffer list calculations	09183865	10/30/1998	PMC-Sierra US, Inc.	
United States			Phase Pre-Emphasis Implementation	13681062	11/19/2012	PMC-Sierra US, Inc.	
United States			Phase-Locked Loop Based Clock Generator and Method for Operating Same	13799175	3/13/2013	PMC-Sierra US, Inc.	
United States			Power Saving for FIFO Buffer without Performance Degradation	13796431	3/12/2013	PMC-Sierra US, Inc.	
United States			Sampling point optimization	13803549	3/14/2013	PMC-Sierra US, Inc.	
United States			Sampling Threshold Detector for Direct Monitoring of RF Signals	13909537	6/4/2013	PMC-Sierra US, Inc.	
United States			Self-Synchronous Scrambler/Descrambler and Method for Operating Same	13842175	3/15/2013	PMC-Sierra US, Inc.	
United States	8080832	12/20/2011	Semiconductor device for electrostatic discharge protection	12242225	9/30/2008	PMC-Sierra US, Inc.	
United States	7788448	8/31/2010	Sequencer cache and method for operating the same	11624938	1/19/2007	PMC-Sierra, Inc.	
United States	8089902	1/3/2012	Serial attached SCSI broadcast primitive processor filtering for loop architectures	11326508	1/6/2006	PMC-Sierra US, Inc.	
United States	8332197	12/11/2012	Simulation of complex system architecture	10712711	11/12/2003	PMC-Sierra, Inc.	
United States	6920106	7/19/2005	Speculative loading of buffers within a	09948455	9/7/2001	PMC-Sierra US, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			port of a network device				
United States	7184411	2/27/2007	Switch-management agent trap scheme in an infiniband-architecture switch	10321233	12/17/2002	PMC-Sierra US, Inc.	
United States	7836219	11/16/2010	System and method for authentication of embedded RAID on a host RAID card	11054785	2/9/2005	PMC-Sierra, Inc.	
United States			Systems and Methods for Aligning Multiple Transmitter Lanes	13691990	12/3/2012	PMC-Sierra US, Inc.	
United States			Systems and Methods for Automatic Storage Initiators Grouping in a Multi-Path Storage Environment	12167248	7/3/2008	PMC-Sierra US, Inc.	
United States			Systems and Methods for Reliably Storing on and Retrieving Data from a Plurality of Insufficiently Reliable Flash Memory Components	13844499	3/15/2013	PMC-Sierra US, Inc.	
United States			Systems and Methods for Reliably Storing on and Retrieving Data from a Plurality of Insufficiently Reliable Flash Memory Components	13844486	3/15/2013	PMC-Sierra US, Inc.	
United States			Systems and Methods for Reliably Storing on and Retrieving Data from a Plurality of Insufficiently Reliable Flash Memory Components	13844474	3/15/2013	PMC-Sierra US, Inc.	
United States			Systems and Methods for Reliably Storing on and Retrieving Data from a Plurality of Insufficiently Reliable Flash Memory Components	13844463	3/15/2013	PMC-Sierra US, Inc.	
United States			Systems and Methods for Reliably Storing on and Retrieving Data from a Plurality of Insufficiently Reliable Flash Memory Components	13844448	3/15/2013	PMC-Sierra US, Inc.	
United States	6463498	10/8/2002	Transmission of FCP response in the same loop tenancy as the FCP data with minimization of inter-sequence gap	09183970	10/30/1998	PMC-Sierra US, Inc.	
United States			Transmitter output impedance calibration for output rise and fall time equalization and edge rate control	13873639	4/30/2013	PMC-Sierra US, Inc.	
United States			A class-based link selection algorithm in	13780733	2/28/2013	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			bonding protocol				
United States			A method and apparatus for blindly estimating and correcting large frequency offset over spectrally flat channels	13746219	1/21/2013	PMC-Sierra, Inc.	
United States			A Method and Apparatus for Controlling the Effective Gain of a Statistically Calibrated ADC	13833401	3/15/2013	PMC-Sierra, Inc.	
United States			A method and apparatus for digital post-distortion compensation of signal non-linearities	13834133	3/15/2013	PMC-Sierra, Inc.	
United States			A Method and Apparatus for SAS Open Address Frame Processing in SAS Expenders	11412944	4/28/2006	PMC-Sierra, Inc.	
United States			A method for improving a receiver's tolerance to correlated channel impairments in the absence of multi-level amplitude information	12969402	12/15/2010	PMC-Sierra, Inc.	
United States			A method for registration of multiple entities belonging to a specific optical networks unit (ONU).	13461812	5/2/2012	PMC-Sierra, Inc.	
United States			A new method for handling multiengine operations in a SAS/SATA controller	13288599	11/3/2011	PMC-Sierra, Inc.	
United States			A Solid-State Drive (SSD) Memory Controller Configured to Communicate with a Pluarity of Memory Arrays in Which Parity Bits for Error Corrective Code Are Distributed	13477635	5/22/2012	PMC-Sierra, Inc.	
United States			Acceleration of Phase and Frequecy Tracking for Low-Latency Timing Recovery Loop	13540962	7/3/2012	PMC-Sierra, Inc.	
United States	7471107	12/30/2008	Active biasing in metal oxide semiconductor (MOS) differential pairs	11128953	5/12/2005	PMC-Sierra, Inc.	
United States	7969195	6/28/2011	Active biasing in metal oxide semiconductor (MOS) differential pairs	12265609	11/5/2008	PMC-Sierra, Inc.	
United States	5923894	13-Jul-99	Adaptable input/output pin control	08963346	11/03/1997	PMC-Sierra, Inc.	
United States			Adaptation of Equalizer for Heavily Compressed or Clipped Communications	12628894	12/1/2009	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			Signals				
United States	6744787	6/1/2004	Adaptive phase shift filtration of pointer justification jitter in synchronous-plesiosynchronous signal desynchronization	09697119	10/27/2000	PMC-Sierra, Inc.	
United States	8023588	9/20/2011	Adaptive predistortion of non-linear amplifiers with burst data	12099369	4/8/2008	PMC-Sierra, Inc.	
United States	7936835	5/3/2011	Adaptive signal decompression	11777819	7/13/2007	PMC-Sierra, Inc.	
United States	8396149	3/12/2013	Adaptive signal decompression	13079310	4/4/2011	PMC-Sierra, Inc.	
United States	6973138	12/6/2005	Advanced adaptive pre-distortion in a radio frequency transmitter	09764680	1/18/2001	PMC-Sierra, Inc.	
United States	7471739	12/30/2008	Advanced adaptive pre-distortion in a radio frequency transmitter	11231165	9/20/2005	PMC-Sierra, Inc.	
United States	5751697	5/12/1998	Allowed cell rate reciprocal approximation in rate-based available bit rate schedulers	08568347	12/6/1995	PMC-Sierra, Inc.	
United States	6356146	3/12/2002	Amplifier measurement and modeling processes for use in generating predistortion parameters	09596962	6/19/2000	PMC-Sierra, Inc.	
United States	6476670	11/5/2002	Amplifier measurement and modeling processes for use in generating predistortion parameters	09899360	7/5/2001	PMC-Sierra, Inc.	
United States	6459334	10/1/2002	Amplifier measurement and modeling processes for use in generating predistortion parameters	09899709	7/5/2001	PMC-Sierra, Inc.	
United States	7127653	10/24/2006	Apparatus and method for efficient data transport using transparent framing procedure	10190348	7/5/2002	PMC-Sierra, Inc.	
United States	7401272	7/15/2008	Apparatus and method for high speed sampling or testing of data signals using automated testing equipment	10096331	3/8/2002	PMC-Sierra, Inc.	
United States			Apparatus and method to adjust power and performance of integrated circuits	12129408	5/30/2008	PMC-Sierra, Inc.	
United States	6724779	4/20/2004	Apparatus for a switch element in a high speed communication system	09699255	10/27/2000	PMC-Sierra, Inc.	
United States	6449274	9/10/2002	Apparatus for high speed communication	09699261	10/27/2000	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			system				
United States	5815737	9/29/1998	Approach for identifying a subset of asynchronous transfer mode (ATM) VPI/VCI values in the complete VPI/VCI range	08461450	6/5/1995	PMC-Sierra, Inc.	
United States	5642347	6/24/1997	Approach to direct performing asynchronous transfer mode (ATM) adaptation layer 5 reassembly	08516215	8/17/1995	PMC-Sierra, Inc.	
United States	5844901	12/1/1998	Asynchronous bit-table calendar for ATM switch	08616875	3/15/1996	PMC-Sierra, Inc.	
United States	6430186	8/6/2002	Asynchronous bit-table calendar for ATM switch	09134635	8/14/1998	PMC-Sierra, Inc.	
United States	6151301	11/21/2000	ATM architecture and switching element	08680869	7/16/1996	PMC-Sierra, Inc.	
United States	5583861	12/10/1996	ATM switching element and method having independently accessible cell memories	08235006	4/28/1994	PMC-Sierra, Inc.	
United States	8090981	1/3/2012	Auto-configuration of RAID systems	12758659	4/12/2010	PMC-Sierra, Inc.	
United States	5706288	1/6/1998	Available bit rate scheduler	08622398	3/27/1996	PMC-Sierra, Inc.	
United States			Background Calibration of Aperture Center Errors in Flash ADCs	13766948	2/14/2013	PMC-Sierra, Inc.	
United States			Background Calibration of Threshold Errors in Analog to Digital Converters	13766855	2/14/2013	PMC-Sierra, Inc.	
United States	7460045	12/2/2008	Background calibration technique for pipelined A/D converters using simplified histogram-based testing	11839097	8/15/2007	PMC-Sierra, Inc.	
United States	6876650	4/5/2005	Bipartite graphical connecting scheduling in time and space switch fabrics	09766602	1/23/2001	PMC-Sierra, Inc.	
United States	7756197	7/13/2010	Built in self test (BIST) for high-speed serial transceivers	10998090	11/24/2004	PMC-Sierra, Inc.	
United States	6671758	12/30/2003	Bus interface for cell and/or packet data transfer	09608294	6/30/2000	PMC-Sierra, Inc.	
United States	7593411	9/22/2009	Bus interface for transfer of multiple SONET/SDH rates over a serial backplane	11522381	9/18/2006	PMC-Sierra, Inc.	
United States	7130968	10/31/2006	Cache memory architecture and	10732998	12/11/2003	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			associated microprocessor design				
United States	7243192	7/10/2007	Cache memory architecture with system controller device that compares cache tags to memory addresses received from microprocessor	11426758	6/27/2006	PMC-Sierra, Inc.	
United States	7298808	11/20/2007	Cascaded jitter frequency shifting Δ - Σ modulated signal synchronization mapper	10424718	4/29/2003	PMC-Sierra, Inc.	
United States	7738617	6/15/2010	Clock and data recovery locking technique for large frequency offsets	11237622	9/28/2005	PMC-Sierra, Inc.	
United States	8139702	3/20/2012	Clock and data recovery locking technique for large frequency offsets	12815045	6/14/2010	PMC-Sierra, Inc.	
United States	8249207	8/21/2012	Clock and data recovery sampler calibration	12040585	2/28/2008	PMC-Sierra, Inc.	
United States	5512860	4/30/1996	Clock recovery phase locked loop control using clock difference detection and forced low frequency startup	08352744	12/2/1994	PMC-Sierra, Inc.	
United States	5793225	8/11/1998	CMOS SONET/ATM receiver suitable for use with pseudo ECL and TTL signaling environments	08581901	1/2/1996	PMC-Sierra, Inc.	
United States	5742765	4/21/1998	Combination local ATM segmentation and reassembly and physical layer device	08666088	6/19/1996	PMC-Sierra, Inc.	
United States	7739432	6/15/2010	Command switching for multiple initiator access to a SATA drive	11470078	9/5/2006	PMC-Sierra, Inc.	
United States	7646063	1/12/2010	Compact CMOS ESD layout techniques with either fully segmented salicide ballasting (FSSB) in the source and/or drain regions	11451610	6/12/2006	PMC-Sierra, Inc.	
United States	5990738	11/23/1999	Compensation system and methods for a linear power amplifier	09216091	12/17/1998	PMC-Sierra, Inc.	
United States	7501851	3/10/2009	Configurable voltage mode transmitted architecture with common-mode adjustment and novel pre-emphasis	11752941	5/24/2007	PMC-Sierra, Inc.	
United States	7584319	9/1/2009	Connection management in serial attached SCSI (SAS) expanders	11390182	3/28/2006	PMC-Sierra, Inc.	
United States	7058369	6/6/2006	Constant gain digital predistortion	10302782	11/21/2002	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			controller for linearization of non-linear amplifiers				
United States	7260365	8/21/2007	Constant gain digital predistortion controller for linearization of non-linear amplifiers	11392180	3/29/2006	PMC-Sierra, Inc.	
United States	7200367	4/3/2007	Constant gain digital predistortion controller for linearization of non-linear amplifiers	11392286	3/29/2006	PMC-Sierra, Inc.	
United States	7177603	2/13/2007	Constant gain digital predistortion controller for linearization of non-linear amplifiers	11392439	3/29/2006	PMC-Sierra, Inc.	
United States	7340223	3/4/2008	Constant gain digital predistortion controller for linearization of non-linear amplifiers	11392453	3/29/2006	PMC-Sierra, Inc.	
United States	7295815	11/13/2007	Constant gain digital predistortion controller for linearization of non-linear amplifiers	11392460	3/29/2006	PMC-Sierra, Inc.	
United States	7904033	3/8/2011	Constant gain digital predistortion controller for linearization of non-linear amplifiers	11678863	2/26/2007	PMC-Sierra, Inc.	
United States	7679448	3/16/2010	Continuous wave based bias method and apparatus for minimizing MOS transistor distortion	11847535	8/30/2007	PMC-Sierra, Inc.	
United States			Control and coordination of ODUflex bandwidth resizing operation.	13466679	5/8/2012	PMC-Sierra, Inc.	
United States	6611875	8/26/2003	Control system for high speed rule processors	09305783	4/30/1999	PMC-Sierra US, Inc.	
United States	6054896	4/25/2000	Controller and associated methods for a line linear power amplifier	09216067	12/17/1998	PMC-Sierra, Inc.	
United States	6601158	7/29/2003	Count/address generation circuitry	09475647	12/30/1999	PMC-Sierra, Inc.	
United States	6956851	10/18/2005	Crossbar subsystem and method	09789651	2/20/2001	PMC-Sierra, Inc.	
United States			Current Ramp Down Method to Reduce Electrical Overstress	13787351	3/6/2013	PMC-Sierra, Inc.	
United States	7426679	9/16/2008	Cyclic redundancy check circuit for use with self-synchronous scramblers	11167109	6/28/2005	PMC-Sierra, Inc.	
United States	7353446	4/1/2008	Cyclic redundancy check circuit for use	11167122	6/28/2005	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			with self-synchronous scramblers				
United States	7394828	7/1/2008	Data format conversion for virtual concatenation processing	10233306	8/30/2002	PMC-Sierra, Inc.	
United States	7283520	10/16/2007	Data stream permutation applicable to large dimensions	10126466	4/19/2002	PMC-Sierra, Inc.	
United States	6490317	12/3/2002	Data, path and flow integrity monitor	09374995	8/16/1999	PMC-Sierra, Inc.	
United States	6016539	18-Jan-00	Datapath control logic for processors having instruction set architectures implemented with hierarchically organized primitive operations	08963345	11/03/1997	PMC-Sierra, Inc.	
United States	7242712	7/10/2007	Decision feedback equalizer (DFE) for jitter reduction	11074966	3/8/2005	PMC-Sierra, Inc.	
United States			Decision Feedback Equalizer with reduced number of compensation factors	13341092	1/10/2012	PMC-Sierra, Inc.	
United States			Decoupling and Pipelining of Multiplexer Loop in Parallel Processing Decision-Feedback Circuits (was Pipelining and Decoupling of Multiplexer Loop in Block Decision Feedback Circuit)	13404754	2/24/2012	PMC-Sierra, Inc.	
United States	7415048	8/19/2008	Differential delay compensation	10232961	8/30/2002	PMC-Sierra, Inc.	
United States	6054894	4/25/2000	Digital control of a line linear power amplifier	09100568	6/19/1998	PMC-Sierra, Inc.	
United States	6774693	8/10/2004	Digital delay line with synchronous control	09484248	1/18/2000	PMC-Sierra, Inc.	
United States	6587514	7/1/2003	Digital predistortion methods for wideband amplifiers	09595988	6/16/2000	PMC-Sierra, Inc.	
United States			Distributed Electrostatic Discharge Protection Circuit	13720048	12/19/2012	PMC-Sierra, Inc.	
United States	20060206635		DMA engine for protocol processing	11373858	3/10/2006	PMC-Sierra, Inc.	
United States	7916671	3/29/2011	Echo cancellation for duplex radios	12504295	7/16/2009	PMC-Sierra, Inc.	
United States			Efficient frequency and phase signaling of constant bit rate clients in a packet environment. (was Low latency mapping of OTN over a packet fabric)	12795363	6/7/2010	PMC-Sierra, Inc.	
United States	7468974	12/23/2008	Efficient strictly non-blocking multicast	10946178	9/22/2004	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			switch architecture for time division multiplexed traffic				
United States	7000136	2/14/2006	Efficient variably-channelized SONET multiplexer and payload mapper	10176230	6/21/2002	PMC-Sierra, Inc.	
United States	7424036	9/9/2008	Efficient virtual concatenation datapath for SONET/SDH	10227453	8/26/2002	PMC-Sierra, Inc.	
United States	7417985	8/26/2008	Egress selection switch architecture with power management	10765945	1/29/2004	PMC-Sierra, Inc.	
United States			Enhanced Functionality Algorithmic TCAM	13369202	2/8/2012	PMC-Sierra, Inc.	
United States	7154946	12/26/2006	Equalizer and equalization method for return-to-zero signals	10618017	7/14/2003	PMC-Sierra, Inc.	
United States	8428113	4/23/2013	Equalizer for heavily clipped or compressed communications signals	12359046	1/23/2009	PMC-Sierra, Inc.	
United States	6621360	9/16/2003	Extended frequency range voltage-controlled oscillator	10056412	1/22/2002	PMC-Sierra, Inc.	
United States	6865183	3/8/2005	F5-to-F4 OAM alarm notification and cell generation in multiple connection ATM switches	09465339	12/17/1999	PMC-Sierra, Inc.	
United States	7043494	5/9/2006	Fast, deterministic exact match look-ups in large tables	10353723	1/28/2003	PMC-Sierra, Inc.	
United States	7227876	6/5/2007	FIFO buffer depth estimation for asynchronous gapped payloads	10321582	12/18/2002	PMC-Sierra, Inc.	
United States	7293055	11/6/2007	Flexible adaptation engine for adaptive transversal filters	10725183	12/1/2003	PMC-Sierra, Inc.	
United States	7107381	9/12/2006	Flexible data transfer to and from external device of system-on-chip	10301369	11/20/2002	PMC-Sierra, Inc.	
United States	6754741	6/22/2004	Flexible FIFO system for interfacing between datapaths of variable length	09854075	5/10/2001	PMC-Sierra, Inc.	
United States	6870831	3/22/2005	Flexible, self-aligning time and space switch fabrics	09845171	5/1/2001	PMC-Sierra, Inc.	
United States	20120300873		Forward error correction with extended effective block size	13464033	5/4/2012	PMC-Sierra, Inc.	
United States	7913151	3/22/2011	Forward error correction with self-synchronous scramblers	11753409	5/24/2007	PMC-Sierra, Inc.	
United States	8020077	9/13/2011	Forward error correction with self-	13019734	2/2/2011	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			synchronous scramblers				
United States	6697332	2/24/2004	Forward performance monitoring cell generation in ATM OAM processing	09616382	7/13/2000	PMC-Sierra, Inc.	
United States			Gain Calibration for a Mueller-Muller type Timing Error Detector. (WAS: Mueller-Muller TED Gain Calibration)	13549030	7/13/2012	PMC-Sierra, Inc.	
United States	7187694	3/6/2007	Generic packet parser	10113797	3/29/2002	PMC-Sierra, Inc.	
United States	8195878	6/5/2012	Hard disk drive with attached solid state drive cache	12388775	2/19/2009	PMC-Sierra, Inc.	
United States	7474926	1/6/2009	Hierarchical device spin-up control for serial attached devices	11390264	3/28/2006	PMC-Sierra, Inc.	
United States	6870273	3/22/2005	High speed I/O pad and pad/cell interconnection for flip chips	10424817	4/29/2003	PMC-Sierra, Inc.	
United States	7200170	4/3/2007	High speed I-O loopback testing with low speed DC test capability	10193131	7/12/2002	PMC-Sierra, Inc.	
United States	7940088	5/10/2011	High speed phase frequency detector	12415426	3/31/2009	PMC-Sierra, Inc.	
United States	6812733	11/2/2004	High-efficiency mixed voltage/current mode output driver	10210076	8/2/2002	PMC-Sierra, Inc.	
United States	5548230	8/20/1996	High-speed CMOS pseudo-ECL output driver	08251960	6/1/1994	PMC-Sierra, Inc.	
United States	6342790	1/29/2002	High-speed, adaptive IDDQ measurement	09548745	4/13/2000	PMC-Sierra, Inc.	
United States	7898295	3/1/2011	Hot-pluggable differential signaling driver	12407269	3/19/2009	PMC-Sierra, Inc.	
United States	7339989	3/4/2008	In-phase and quadrature decision feedback equalizer	10818189	4/5/2004	PMC-Sierra, Inc.	
United States	8018251	9/13/2011	Input/output interfacing with low power	12791547	6/1/2010	PMC-Sierra, Inc.	
United States	8428203	4/23/2013	Integrated tunable RF notch filter	12349328	1/6/2009	PMC-Sierra, Inc.	
United States	5568486	10/22/1996	Integrated user network interface device	08250895	5/31/1994	PMC-Sierra, Inc.	
United States	6850523	2/1/2005	Interface between a link layer device and one or more physical layer devices	09313267	5/18/1999	PMC-Sierra, Inc.	
United States	8019029	9/13/2011	Interference erasure using soft decision weighting of the Viterbi decoder input in OFDM systems	12062392	4/3/2008	PMC-Sierra, Inc.	
United States	7986190	7/26/2011	Jitter attenuation with a fractional-N clock synthesizer	12610074	10/30/2009	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	6819725	11/16/2004	Jitter frequency shifting Δ - Σ modulated signal synchronization mapper	09641980	8/21/2000	PMC-Sierra, Inc.	
United States	7023941	4/4/2006	Joint equalization and timing acquisition for RZ signals	10384585	3/11/2003	PMC-Sierra, Inc.	
United States	6553029	4/22/2003	Link aggregation in ethernet frame switches	09351406	7/9/1999	PMC-Sierra, Inc.	
United States			Link List Based SAS Target Queues with Dispatcher Cache (was Link list based per SAS target queue)	13288637	11/3/2011	PMC-Sierra, Inc.	
United States	7130920	10/31/2006	Load balancing multicast connection scheduling in 3-stage TDM fabrics	10359618	2/7/2003	PMC-Sierra, Inc.	
United States	6316977	11/13/2001	Low charge-injection charge pump	09617201	7/14/2000	PMC-Sierra, Inc.	
United States	6570444	5/27/2003	Low noise wideband digital predistortion amplifier	09770568	1/26/2001	PMC-Sierra, Inc.	
United States	5734541	3/31/1998	Low voltage silicon controlled rectifier structure for ESD input pad protection in CMOS IC's	08650836	5/20/1996	PMC-Sierra, Inc.	
United States	7492760	2/17/2009	Memory egress self selection architecture	10812958	3/31/2004	PMC-Sierra, Inc.	
United States	5548580	8/20/1996	Method and apparatus for recovering a variable bit rate service clock	08350550	12/7/1994	PMC-Sierra, Inc.	
United States			Method and Apparatus for a multi-engine Descriptor Controller (was Descriptor controller for multi-engines operation)	13288619	11/3/2011	PMC-Sierra, Inc.	
United States	7954006	5/31/2011	Method and apparatus for archiving data during unexpected power loss	12326845	12/2/2008	PMC-Sierra, Inc.	
United States	7348808	3/25/2008	Method and apparatus for detection of high-speed electrical signals	11414130	4/27/2006	PMC-Sierra, Inc.	
United States			Method and Apparatus for Distributed Topology Discovery Function in Serial Attached Small Computer System Interface (SAS)	11536250	9/28/2006	PMC-Sierra, Inc.	
United States	6341296	1/22/2002	Method and apparatus for efficient selection of a boundary value	09300357	4/27/1999	PMC-Sierra, Inc.	
United States	5570348	10/29/1996	Method and apparatus for enqueueing data cells in an ATM switch fabric architecture	08439078	5/11/1995	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	7188168	3/6/2007	Method and apparatus for grammatical packet classifier	09557736	4/25/2000	PMC-Sierra, Inc.	
United States	6188690	2/13/2001	Method and apparatus for high speed, scalable communication system	08988940	12/11/1997	PMC-Sierra, Inc.	
United States	6691168	2/10/2004	Method and apparatus for high-speed network rule processing	09246572	2/8/1999	PMC-Sierra US, Inc.	
United States			Method and apparatus for improving the signal integrity of high-speed serial data receivers using coupled inductors. (was RX Path Topologies Using Reactive Elements)	12781335	5/17/2010	PMC-Sierra, Inc.	
United States	6798744	9/28/2004	Method and apparatus for interconnection of flow-controlled communication	09574305	5/19/2000	PMC-Sierra, Inc.	
United States	20040257997		Method and apparatus for interconnection of flow-controlled communication	10871334	6/18/2004	PMC-Sierra, Inc.	
United States	7110358	9/19/2006	Method and apparatus for managing data traffic between a high capacity source and multiple destinations	09580532	5/26/2000	PMC-Sierra, Inc.	
United States	7492714	2/17/2009	Method and apparatus for packet grooming and aggregation	10771268	2/3/2004	PMC-Sierra, Inc.	
United States	6457061	9/24/2002	Method and apparatus for performing internet network address translation	09199839	11/24/1998	PMC-Sierra, Inc.	
United States	7185081	2/27/2007	Method and apparatus for programmable lexical packet classifier	09538132	3/29/2000	PMC-Sierra, Inc.	
United States			Method and Apparatus for Queue Ordering in a Multi-Engine Processing System (was Multi-engine descriptor queue ordering)	13288437	11/3/2011	PMC-Sierra, Inc.	
United States	5771228	6/23/1998	Method and apparatus for recovery of peak cell rate tokens in an ATM network interface	08648710	5/16/1996	PMC-Sierra, Inc.	
United States	7668210	2/23/2010	Method and apparatus for reducing current demand variations in large fan-out trees	10830031	4/23/2004	PMC-Sierra, Inc.	
United States	7668925	2/23/2010	Method and apparatus for routing in SAS	11341573	1/30/2006	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			using logical zones				
United States	8116409	2/14/2012	Method and apparatus for serdes jitter tolerance improvement	12361436	1/28/2009	PMC-Sierra, Inc.	
United States	6275861	8/14/2001	Method and apparatus to identify flows in data systems	08937285	9/15/1997	PMC-Sierra, Inc.	
United States	7567587	7/28/2009	Method and architecture for the extraction and/or insertion of SONET or SDH path overhead data streams	10753446	1/9/2004	PMC-Sierra, Inc.	
United States	8340134	12/25/2012	Method and system for controlling count information in generic mapping procedure	12612397	11/4/2009	PMC-Sierra, Inc.	
United States	6445705	9/3/2002	Method for a high speed communication system	09699075	10/27/2000	PMC-Sierra, Inc.	
United States			Method for Dynamic Allocation of Queue Storage	13027777	2/16/2011	PMC-Sierra, Inc.	
United States	7508266	3/24/2009	Method for enhancing linearity of a transistor amplifier using switched capacitive loads	11846959	8/29/2007	PMC-Sierra, Inc.	
United States			Method for Maintaining CAM Coherency with Multiple Asynchronous Clients	12559951	9/15/2009	PMC-Sierra, Inc.	
United States	6345050	2/5/2002	Method for manipulating cells in a high speed communication system	09699260	10/27/2000	PMC-Sierra, Inc.	
United States	5537055	7/16/1996	Method for protecting an ASIC by resetting it after a predetermined time period	08269083	6/30/1994	PMC-Sierra, Inc.	
United States	6396809	5/28/2002	Method for signaling in a high speed communication system	09698356	10/27/2000	PMC-Sierra, Inc.	
United States	7774424	8/10/2010	Method of rate snooping in a SAS/SATA environment	11470042	9/5/2006	PMC-Sierra, Inc.	
United States	5557607	17-Sep-96	Methods and apparatus for enqueueing and dequeueing data cells in an atm switch fabric architecture	08439147	05/11/1995	PMC-Sierra, Inc.	
United States			Methods and apparatus for signal equalization in dual polarization multiplexed optical communication	13767092	2/14/2013	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			systems. (was:A new equalization architecture for dual-polarized optical receivers)				
United States	7985644	7/26/2011	Methods for forming fully segmented salicide ballasting (FSSB) in the source and/or drain region	12606691	10/27/2009	PMC-Sierra, Inc.	
United States	20110258393		Mirrored cache protection	13084862	4/12/2011	PMC-Sierra, Inc.	
United States	6407412	6/18/2002	MOS varactor structure with engineered voltage control range	09523592	3/10/2000	PMC-Sierra, Inc.	
United States	6856622	2/15/2005	Multicast cell scheduling protocol	09789879	2/20/2001	PMC-Sierra, Inc.	
United States	7212524	5/1/2007	Multicast connection scheduling in time:space:time switching fabrics	10323939	12/20/2002	PMC-Sierra, Inc.	
United States	6552619	4/22/2003	Multi-channel clock recovery circuit	09775811	2/5/2001	PMC-Sierra, Inc.	
United States	6982995	1/3/2006	Multi-channel SONET/SDH desynchronizer	09840110	4/24/2001	PMC-Sierra, Inc.	
United States	7474612	1/6/2009	Multi-function bypass port and port bypass circuit	10805441	3/22/2004	PMC-Sierra, Inc.	
United States	6150836	11/21/2000	Multilevel logic field programmable device	09346556	6/30/1999	PMC-Sierra, Inc.	
United States			Multi-Rate Control Loop for a Digital PLL (Was: High-Rate Low-Clock Polyphase Implementation of Timing Recovery)	13827587	3/14/2013	PMC-Sierra, Inc.	
United States			On-Chip At-Speed Eye Measurements of Digitized Signals in Data and Timing Recovery Circuits (Was: Fast Low-Cost On-Chip Horizontal Eye Measurement for Interpolated SERDES Signals)	13479733	5/24/2012	PMC-Sierra, Inc.	
United States	7095752	8/22/2006	On-chip inter-subsystem communication including concurrent data traffic routing	10086953	2/28/2002	PMC-Sierra, Inc.	
United States	7349424	3/25/2008	On-chip inter-subsystem communication including concurrent data traffic routing	11424787	6/16/2006	PMC-Sierra, Inc.	
United States	7743191	6/22/2010	On-chip shared memory based device architecture	11961402	12/20/2007	PMC-Sierra, Inc.	
United States			Optimal Timing Recovery Feed-Forward Equalization (Was: Optimal Fractional	13585409	8/14/2012	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			FFE configuration for timing recovery.)				
United States	7979041	7/12/2011	Out-of-channel received signal strength indication (RSSI) for RF front end	11952463	12/7/2007	PMC-Sierra, Inc.	
United States	7234086	6/19/2007	Overlapping jumping window for SONET/SDH bit error rate monitoring	10755403	1/13/2004	PMC-Sierra, Inc.	
United States	6647019	11/11/2003	Packet-switch system	09303765	4/29/1999	PMC-Sierra, Inc.	
United States	6366996	4/2/2002	Page memory management in non time critical data buffering applications	09489917	1/24/2000	PMC-Sierra, Inc.	
United States	5461621	10/24/1995	Pair division multiplexer for digital communications	08251958	6/1/1994	PMC-Sierra, Inc.	
United States			Parallel Replica CDR to Correct Offset and Gain in Baud Rate Sampling Phase Detector	13549134	7/13/2012	PMC-Sierra, Inc.	
United States			Parallel Replica CDR to Minimize ADC and DSP Complexity.	13549104	7/13/2012	PMC-Sierra, Inc.	
United States	6631466	10/7/2003	Parallel string pattern searches in respective ones of array of nanocomputers	09569593	5/9/2000	PMC-Sierra US, Inc.	
United States	7622987	11/24/2009	Pattern-based DC offset correction	12019535	1/24/2008	PMC-Sierra, Inc.	
United States	8315303	11/20/2012	Phase pre-emphasis for a serial data transmitter	12110210	4/25/2008	PMC-Sierra, Inc.	
United States	6668297	12/23/2003	POS-PHY interface for interconnection of physical layer devices and link layer devices	09459972	12/14/1999	PMC-Sierra, Inc.	
United States	7912151	3/22/2011	Post-distortion filter for reducing sensitivity to receiver nonlinearities	11688685	3/20/2007	PMC-Sierra, Inc.	
United States	8300733	10/30/2012	Post-distortion filter for reducing sensitivity to receiver nonlinearities	12985206	1/5/2011	PMC-Sierra, Inc.	
United States	7760122	7/20/2010	Power optimized ADC for wireless transceivers	12114322	5/2/2008	PMC-Sierra, Inc.	
United States	7982651	7/19/2011	Power optimized ADC for wireless transceivers	12748754	3/29/2010	PMC-Sierra, Inc.	
United States	7177352	2/13/2007	Pre-cursor inter-symbol interference cancellation	11146375	5/31/2005	PMC-Sierra, Inc.	
United States	6342810	1/29/2002	Predistortion amplifier system with separately controllable amplifiers	09597915	6/19/2000	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	8446979	5/21/2013	Predistortion with integral crest-factor reduction and reduced observation bandwidth	12715745	3/2/2010	PMC-Sierra, Inc.	
United States	5760618	6/2/1998	Process compensated integrated circuit output driver	08664119	6/14/1996	PMC-Sierra, Inc.	
United States	5940626	17-Aug-99	Processor having an instruction set architecture implemented with hierarchically organized primitive operations	08963387	11/03/1997	PMC-Sierra, Inc.	
United States	5606563	2/25/1997	Programmable jump window for sonet compliant bit error monitoring	08444307	5/18/1995	Pmc-Sierra, Inc.	
United States	6006321	12/21/1999	Programmable logic datapath that may be used in a field programmable device	08874817	6/13/1997	PMC-Sierra, Inc.	
United States	6121791	9/19/2000	Programmable logic datapath that may be used in a field programmable device	09343389	6/30/1999	PMC-Sierra, Inc.	
United States	6351142	2/26/2002	Programmable logic datapath that may be used in a field programmable device	09609912	7/3/2000	PMC-Sierra, Inc.	
United States	6531888	3/11/2003	Programmable logic datapath that may be used in a field programmable device	10050496	1/16/2002	PMC-Sierra, Inc.	
United States			Programmable Passive Peaking Equalizer (was 10Gb/s Programmable Passive Peaking)	13826511	3/14/2013	PMC-Sierra, Inc.	
United States	7844650	11/30/2010	Pulse output direct digital synthesis circuit	11754325	5/28/2007	PMC-Sierra, Inc.	
United States	7515650	4/7/2009	Quadrature modulation compensation	11099098	4/5/2005	PMC-Sierra, Inc.	
United States	7724781	5/25/2010	Receive virtual concatenation processor	10232962	8/30/2002	PMC-Sierra, Inc.	
United States	5974435	10/26/1999	Reconfigurable arithmetic datapath	08953766	10/17/1997	PMC-Sierra, Inc.	
United States			Reconfigurable Scan Chain Connectivity to Enable Flexible Device I/O Utilization (Was: Flexible Scan Chain Reconfiguration Logic)	13309208	12/1/2011	PMC-Sierra, Inc.	
United States	8004330	8/23/2011	Reduction of electromagnetic interference for differential signals	12627345	11/30/2009	PMC-Sierra, Inc.	
United States			Reed-Solomon Decoder	13803919	3/14/2013	PMC-Sierra, Inc.	
United States	5677650	10/14/1997	Ring oscillator having a substantially sinusoidal signal	08574922	12/19/1995	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	8019028	9/13/2011	Run-length based spectral analysis	12055948	3/26/2008	PMC-Sierra, Inc.	
United States			SAS/SATA Store and Forward Buffering for Serial Attached SCSI (SAS) Storage Network	13753255	1/29/2013	PMC-Sierra, Inc.	
United States	8446173	5/21/2013	Scalable high-swing transmitter with rise and/or fall time mismatch compensation	13288875	11/3/2011	PMC-Sierra, Inc.	
United States			Scalable high-swing transmitter with rise/fall time mismatch compensation	13288881	11/3/2011	PMC-Sierra, Inc.	
United States			Scalable high-swing transmitter with rise/fall time mismatch compensation	13288866	11/3/2011	PMC-Sierra, Inc.	
United States			Scalable high-swing transmitter with rise/fall time mismatch compensation	13898310	5/20/2013	PMC-Sierra, Inc.	
United States	6584521	6/24/2003	Scaleable bandwidth interconnect for simultaneous transfer of mixed pleisiochronous digital hierarchy (PDH) clients	09472153	12/27/1999	PMC-Sierra, Inc.	
United States			Search Table for Data Networking Matching	13414383	3/7/2012	PMC-Sierra, Inc.	
United States	7777248	8/17/2010	Semiconductor device for latch-up prevention	12242413	9/30/2008	PMC-Sierra, Inc.	
United States	7543193	6/2/2009	Serial data validity monitor	10860548	6/2/2004	PMC-Sierra, Inc.	
United States	7496700	2/24/2009	Serial tunneling protocol (STP) flow control in SAS expanders without SATA link state machine	11326505	1/6/2006	PMC-Sierra, Inc.	
United States	6735212	5/11/2004	Short and long term fair shuffling for crossbar switch arbiter	09549878	4/17/2000	PMC-Sierra, Inc.	
United States	7656945	2/2/2010	Stabilized digital timing recovery using low-complexity equalizer	11538346	10/3/2006	PMC-Sierra, Inc.	
United States	8296513	10/23/2012	Standby disk spin up control in disk array system using expander device	12545114	8/21/2009	PMC-Sierra, Inc.	
United States	5640398	6/17/1997	State machine architecture for concurrent processing of multiplexed data streams	08551530	11/1/1995	PMC-Sierra, Inc.	
United States	6438569	8/20/2002	Sums of production datapath	09399981	9/20/1999	PMC-Sierra, Inc.	
United States	6566933	5/20/2003	Switched capacitor transmitter pre-driver	09621964	7/21/2000	PMC-Sierra, Inc.	
United States	7391787	6/24/2008	System and method for opportunistic request-grant switching	10937469	9/10/2004	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States			System and Method for Synchronizing Local Oscillators	13910016	6/4/2013	PMC-Sierra, Inc.	
United States	5990734	11/23/1999	System and methods for stimulating and training a power amplifier during non-transmission events	09216092	12/17/1998	PMC-Sierra, Inc.	
United States	7751411	7/6/2010	System interface for cell and/or packet transfer	09756680	1/10/2001	PMC-Sierra, Inc.	
United States	7363563	4/22/2008	Systems and methods for a built in test circuit for asynchronous testing of high-speed transceivers	11005465	12/6/2004	PMC-Sierra, Inc.	
United States	7161523	1/9/2007	Systems and methods for a self-organizing analog-to-digital converter	11219417	9/2/2005	PMC-Sierra, Inc.	
United States	7202706	4/10/2007	Systems and methods for actively-peaked current-mode logic	10820381	4/8/2004	PMC-Sierra, Inc.	
United States	7288971	10/30/2007	Systems and methods for actively-peaked current-mode logic	11691859	3/27/2007	PMC-Sierra, Inc.	
United States	7913075	3/22/2011	Systems and methods for automatic provisioning of storage and operating system installation from pre-existing iscsi target	12167250	7/3/2008	PMC-Sierra, Inc.	
United States			Systems and Methods for Clock Path Single-Ended DCD and Skew Correction	13873817	4/30/2013	PMC-Sierra, Inc.	
United States	7719806	5/18/2010	Systems and methods for ESD protection	11672304	2/7/2007	PMC-Sierra, Inc.	
United States	7656791	2/2/2010	Systems and methods for hitless equipment protection	11780361	7/19/2007	PMC-Sierra, Inc.	
United States	7388937	6/17/2008	Systems and methods for jitter analysis of digital signals	10923988	8/23/2004	PMC-Sierra, Inc.	
United States	7558357	7/7/2009	Systems and methods for reducing frequency-offset induced jitter	11257711	10/25/2005	PMC-Sierra, Inc.	
United States	7437641	10/14/2008	Systems and methods for signature circuits	11096293	4/1/2005	PMC-Sierra, Inc.	
United States	7539893	5/26/2009	Systems and methods for speed binning of integrated circuits	11513624	8/31/2006	PMC-Sierra, Inc.	
United States	7061990	6/13/2006	Systems and methods for the dynamic range compression of multi-bearer single-carrier and multi-carrier	09910422	7/20/2001	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			waveforms				
United States	7409011	8/5/2008	Systems and methods for the dynamic range compression of multi-bearer single-carrier and multi-carrier waveforms	11411336	4/26/2006	PMC-Sierra, Inc.	
United States	7061991	6/13/2006	Systems and methods for the reduction of peak to average signal levels of multi-bearer single-carrier and multi-carrier waveforms	09910477	7/20/2001	PMC-Sierra, Inc.	
United States	7453954	11/18/2008	Systems and methods for the reduction of peak to average signal levels of multi-bearer single-carrier and multi-carrier waveforms	11411344	4/26/2006	PMC-Sierra, Inc.	
United States	7205820	4/17/2007	Systems and methods for translation of signal levels across voltage domains	11177853	7/8/2005	PMC-Sierra, Inc.	
United States	7557626	7/7/2009	Systems and methods of reducing power consumption of digital integrated circuits	11681057	3/1/2007	PMC-Sierra, Inc.	
United States	7656227	2/2/2010	Techniques to control amplifier gain over process, voltage, and/or temperature (PVT) variations	12037340	2/26/2008	PMC-Sierra, Inc.	
United States	6467006	10/15/2002	Topology-independent priority arbitration for stackable frame switches	09350738	7/9/1999	PMC-Sierra, Inc.	
United States	5668797	9/16/1997	Traffic controller for cell-based transmission	08568379	12/6/1995	PMC-Sierra, Inc.	
United States	8134410	3/13/2012	Transceiver gain calibration	12488919	6/22/2009	PMC-Sierra, Inc.	
United States	6697436	2/24/2004	Transmission antenna array system with predistortion	09596410	6/19/2000	PMC-Sierra, Inc.	
United States	7177314	2/13/2007	Transmit virtual concatenation processor	09943886	8/30/2001	PMC-Sierra, Inc.	
United States			Transmitter Data Path Single-Ended Duty Cycle Correction for EMI Reduction	13873875	4/30/2013	PMC-Sierra, Inc.	
United States	7714643	5/11/2010	Tuning of analog filters	12044636	3/7/2008	PMC-Sierra, Inc.	
United States			Two Dimensional DMA SGL Cache	12939128	11/3/2010	PMC-Sierra, Inc.	
United States	6313703	11/6/2001	Use of antiphase signals for predistortion training within an amplifier system	09517702	3/2/2000	PMC-Sierra, Inc.	
United States			Using the semiconductor foundry	13535835	6/28/2012	PMC-Sierra, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			implant process to greatly reduce leakage in product variants having unused circuits (was)using implant process to greatly reduce leakage in unused circuits				
United States	5745490	4/28/1998	Variable bit rate scheduler	08666087	6/19/1996	PMC-Sierra, Inc.	
United States	6510076	1/21/2003	Variable read/write margin high-performance soft-error tolerant SRAM bit cell	10073036	2/12/2002	PMC-Sierra, Inc.	
United States	7733149	6/8/2010	Variable-length digitally-controlled delay chain with interpolation-based tuning	12137394	6/11/2008	PMC-Sierra, Inc.	
United States	7884660	2/8/2011	Variable-length digitally-controlled delay chain with interpolation-based tuning	12767092	4/26/2010	PMC-Sierra, Inc.	
United States	6178482	1/23/2001	Virtual register sets	08963391	11/3/1997	PMC-Sierra, Inc.	
United States	6940916	9/6/2005	Wideband analog quadrature modulator/demodulator with pre-compensation/post-compensation correction	09771144	1/26/2001	PMC-Sierra, Inc.	
United States	6798843	9/28/2004	Wideband digital predistortion linearizer for nonlinear amplifiers	09596142	6/16/2000	PMC-Sierra, Inc.	
United States	8396441	3/12/2013	Wideband mixer	12170176	7/9/2008	PMC-Sierra, Inc.	
United States	8081665	12/20/2011	Virtual concatenation of PDH signals	11367747	3/3/2006	PMC-Sierra, Inc.; Agere Systems, Inc.	
United States	8413006	4/2/2013	Error detection and correction in data and control words	12705304	2/12/2010	PMC-Sierra, Inc.; Open-Silicon, Inc.	
United States	5436597	25-Jul-95	Pro-capture circuit for phase locked loop circuits	08272837	11-Jul-94	PMC-Sierra Inc.	
United States	5489902	06-Feb-96	Dynamic power saving video DAC	08233928	28-Apr-94	PMC-Sierra Inc.	
United States	5522086	28-May-96	Software configurable ISA bus card interface with security access read and write sequence to upper data bits at addresses used by a game device	08143363	29-Oct-93	PMC-Sierra Inc.	Sierra Semiconductor
United States	5550495	27-Aug-96	All MOS voltage to current converter	08241720	12-May-94	PMC-Sierra Inc.	
United States	5586309	17-Dec-96	Universal programming interface for clock generators operable in a parallel programming mode and a serial programming mode	08341036	15-Nov-94	PMC-Sierra Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
United States	5598552	28-Jan-97	Error free data transfers	08285755	03-Aug-94	PMC-Sierra Inc.	
United States	5675294	07-Oct-97	Single pin crystal oscillator circuit	08582881	04-Jan-96	PMC-Sierra Inc.	Sierra Semiconductor
United States	5808630	15-Sep-98	Split video architecture for personal computers	08552771	03-Nov-95	PMC-Sierra Inc.	Sierra Semiconductor
United States	5825166	20-Oct-98	Power supply self-adjusted circuit for dual or multiple voltage integrated circuits	08615883	14-Mar-96	PMC-Sierra Inc.	Sierra Semiconductor
United States	5917352	29-Jun-99	Three-state phase-detector/charge pump with no dead-band offering tunable phase in phase-locked loop circuits	08941347	30-Sep-97	PMC-Sierra Inc.	Sierra Semiconductor
United States	6063659	16-May-00	Method of forming a high-precision linear MOS capacitor using conventional MOS device processing steps	08923810	04-Sep-97	PMC-Sierra Inc.	Sierra Semiconductor
United States	7054330	05/30/2006	Mask-based round robin arbitration	09948748	09/07/2001	PMC-Sierra US, Inc.	
United States	7747794	06/29/2010	Serial tunneling protocol (STP) flow control in sas expanders without sata link state machine	12355362	01/16/2009	PMC-Sierra, Inc.	
United States	7664028	02/16/2010	Apparatus and method for metering and marking data in a communication system	10093092	03/05/2002	PMC-Sierra, Inc.	
United States	7639693	12/29/2009	Method and/or apparatus distributing variable-sized data units to variable destinations	10356707	01/30/2003	PMC-Sierra, Inc.	
United States	7136926	11/14/2006	Method and apparatus for high-speed network rule processing	09224382	12/31/1998	PMC-Sierra US, Inc.	
United States	7016996	03/21/2006	Method and apparatus to detect a timeout condition for a data item within a process	10123553	04/15/2002	PMC-Sierra US, Inc.	
United States	6978457	12/20/2005	Method and system increasing performance substituting finite state machine control with hardware-implemented data structure manipulation	09494817	01/31/2000	PMC-Sierra US, Inc.	
United States	6950394	09/27/2005	Methods and systems to transfer information using an alternative routing associated with a communication network	09948460	09/07/2001	PMC-Sierra US, Inc.	
United States	6922749	07/26/2005	Apparatus and methodology for an input port of a switch that supports cut-through	09977515	10/12/2001	PMC-Sierra US, Inc.	

PMC-SIERRA U.S. PATENTS

Country	Publication/Issue Number	Publication Date/ Issue Date	Title	Application Number	Application/ Filing Date	Owner	Record Title Owner (if different than Owner)
			operation within the switch				
United States	6898752	05/24/2005	Apparatus and methods for combinational error detection in an infiniband switch	10161503	05/31/2002	PMC-Sierra US, Inc.	
United States	6493750	12/10/2002	Command forwarding: a method for optimizing I/O latency and throughput in fibre channel client/server/target mass storage architectures	09183969	10/30/1998	PMC-Sierra US, Inc.	
United States	6463484	10/08/2002	Egress port scheduling using memory efficient request storage	09350166	07/09/1999	PMC-Sierra, Inc.	
United States	5473600	12/05/1995	Efficient data storage arrangement for far-end echo canceller	08246722	05/20/1994	PMC-Sierra, Inc.	