

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Freescale Semiconductor, Inc.	02/25/2009

RECEIVING PARTY DATA

Name:	EverSpin Technologies, Inc.
Street Address:	1300 N. Alma School Road
City:	Chandler
State/Country:	ARIZONA
Postal Code:	85224

PROPERTY NUMBERS Total: 1

Property Type	Number
Patent Number:	7170706

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	080.0105S
NAME OF SUBMITTER:	William E. Koch

Total Attachments: 12
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Form Intellectual Property Assignment for Assigned Patents

Pursuant to the terms and conditions of a certain Intellectual Property Agreement dated as of June 5, 2008 (the "IPA") between Freescale Semiconductor, Inc., a corporation organized and existing under the laws of the State of Delaware ("Assignor") hereby assigns, transfers and sets over to Everspin Technologies, Inc., a corporation organized and existing under the laws of Delaware ("Assignee"), Assignor assigns its entire right, title and interest for the United States of America and its territorial possessions, and all foreign countries including all rights of priority, in and to the patents and patent applications set forth on Schedule A hereto and all reissues and reexaminations thereof, and all divisionals, continuations, and continuations-in-part (to the extent they claim inventions claimed and disclosed in the patents listed above) thereof existing as of the date hereof, and all inventions disclosed therein, together with all claims for damages by reason of past or future infringement, with the right to sue for and collect the same for the use and benefit of Assignor and its successors and assigns.

Assignor agrees to execute all applications, amended specifications, deeds or other instruments, and to do all acts necessary or proper to vest and confirm in Assignee, its successors and assigns, the legal title to all such patents and patent applications.

Assignor does hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said inventions or applications based thereon to Assignee, its successors and assigns.

This assignment of patents and applications is delivered subject to and pursuant to the terms and conditions of the IPA and the rights and obligations of Assignor and Assignee set forth in the representations, warranties, covenants, indemnities and other terms and provisions of the IPA shall not be limited, altered, impaired, enhanced or enlarged hereby or by the performance hereunder.

Witness my hand and seal this 25th day of February, 2009.



Jennifer Whamett
Vice President & Chief Intellectual
Property Counsel

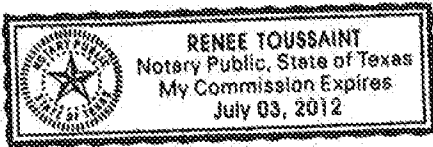
County of Travis)
State of Texas)

On this 25th day of February, 2009, before me, the undersigned notary public, personally appeared Jennifer Wuamett, proved to me through satisfactory evidence of identification, which was Freescan / ID, to be the person whose name is signed on the preceding document, and acknowledged to me that he signed it voluntarily for its stated purpose.

[affix seal]

Renee Toussaint
Notary Public

My commission expires: July 3, 2012



Schedule A

List of Assigned Patents

Status	Docket #	Clty	App #	App Dt	Patent #	Grant Dt	Title
GRANTED	CML00234CR	USA	10/437831	13-May-03	6714446	30-Mar-04	MAGNETOELECTRONICS INFORMATION DEVICE HAVING A COMPOUND MAGNETIC FREE LAYER
GRANTED	CML00237CR	USA	10/209524	31-Jul-02	7172904	06-Feb-07	HIGH SENSITIVITY SENSOR FOR TAGGED MAGNETIC BEAD BIOASSAYS
FILED	CML00237CR	USA	11/616142	26-Dec-06			HIGH SENSITIVITY SENSOR FOR TAGGED MAGNETIC BEAD BIOASSAYS
GRANTED	CML00245CR	USA	10/232111	30-Aug-02	6801415	05-Oct-04	NANOCRYSTALLINE LAYERS FOR IMPROVED MRAM TUNNEL JUNCTIONS
GRANTED	CML00246CR	USA	10/232164	30-Aug-02	6831312	14-Dec-04	AMORPHOUS ALLOYS FOR MAGNETIC DEVICES
GRANTED	CML00246CR	USA	10/980930	03-Nov-04	7067931	27-Jun-06	AMORPHOUS ALLOYS FOR MAGNETIC DEVICES
GRANTED	CML00284CR	USA	10/322979	18-Dec-02	6898112	24-May-05	SYNTHETIC ANTIFERROMAGNETIC STRUCTURE FOR MAGNETOELECTRONIC DEVICES
GRANTED	CML00284CR	USA	11/075537	09-Mar-05	7235408	26-Jun-07	SYNTHETIC ANTIFERROMAGNETIC STRUCTURE FOR MAGNETOELECTRONIC DEVICES
GRANTED	CML00285CR	USA	10/285161	31-Oct-02	6783637	31-Aug-04	MAGNETOELECTRONIC DEVICES
GRANTED	CML00320CR	USA	10/647976	25-Aug-03	6956764	18-Oct-05	HIGH THROUGHPUT DUAL ION BEAM DEPOSITION APPARATUS
GRANTED	CML00331CR	USA	10/611789	30-Jun-03	6818961	16-Nov-04	METHOD OF WRITING TO A MULTI-STATE MAGNETIC RANDOM ACCESS MEMORY CELL
GRANTED	CML00378CR	USA	10/648466	25-Aug-03	6967366	22-Nov-05	OBLIQUE DEPOSITION TO INDUCE MAGNETIC ANISOTROPY FOR MRAM CELLS
FILED	CML00378CR	USA	11/240179	29-Sep-05			MAGNETORESISTIVE RANDOM ACCESS MEMORY WITH REDUCED SWITCHING FIELD VARIATION
GRANTED	CML00379CR	USA	10/209156	31-Jul-02	6654278	25-Nov-03	MAGNETORESISTIVE RANDOM ACCESS MEMORY WITH REDUCED SWITCHING FIELD VARIATION
GRANTED	CR00-002	USA	09/649114	28-Aug-00	6365419	02-Apr-02	MAGNETORESISTANCE RANDOM ACCESS MEMORY
GRANTED	CR00-004	USA	09/792466	26-Feb-01	6515341	04-Feb-03	HIGH DENSITY MRAM CELL ARRAY
GRANTED	CR00-005	USA	09/774934	31-Jan-01	6304477	16-Oct-01	MAGNETOELECTRONICS ELEMENT HAVING A STRESSED OVER-LAYER CONFIGURED FOR ALTERATION OF THE SWITCHING ENERGY BARRIER
GRANTED	CR00-006	USA	09/774949	31-Jan-01	6515395	04-Feb-03	CONTENT ADDRESSABLE MAGNETIC RANDOM ACCESS MEMORY
GRANTED	CR00-007	USA	09/695467	24-Oct-00	6579625	17-Jun-03	NON-VOLATILE MAGNETIC REGISTER
GRANTED	CR00-010	USA	09/649117	28-Aug-00	6331943	18-Dec-01	MAGNETOELECTRONICS ELEMENT HAVING A MAGNETIC LAYER FORMED OF MULTIPLE SUB-ELEMENT LAYERS
GRANTED	CR00-013	USA	09/649562	28-Aug-00	6272041	07-Aug-01	MTJ MRAM SERIES-PARALLEL ARCHITECTURE
GRANTED	CR00-014	USA	09/774983	31-Jan-01	6452823	17-Sep-02	MTJ MRAM PARALLEL-PARALLEL ARCHITECTURE
GRANTED	CR00-016	USA	09/677505	02-Oct-00	6549454	15-Apr-03	NON-VOLATILE MAGNETIC CACHE MEMORY AND METHOD OF USE
GRANTED	CR00-021	USA	09/940263	27-Aug-01	6430084	06-Aug-02	TMR MATERIAL HAVING A SUBSTANTIALLY SMOOTH AND CONTINUOUS ULTRA-THIN MAGNETIC LAYER
GRANTED	CR00-021	USA	09/940263	27-Aug-01	6430084	06-Aug-02	MAGNETO-ELECTRONIC COMPONENT

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GRANTED	CR00-027	USA	10/029085	21-Dec-01	6525957	25-Feb-03	MAGNETO-ELECTRONIC COMPONENT AND METHOD OF MANUFACTURING
GRANTED	CR00-038	USA	09/340319	27-Aug-01	6430085	06-Aug-02	MAGNETO-ELECTRONIC COMPONENT AND METHOD OF MANUFACTURE
GRANTED	CR00-039	USA	10/093909	08-Mar-02	6927072	09-Aug-05	METHOD OF APPLYING CLADDING MATERIAL ON CONDUCTIVE LINES OF MRAM DEVICES
FILED	CR00-039	USA	11/139143	26-May-05			METHOD OF APPLYING CLADDING MATERIAL ON CONDUCTIVE LINES OF MRAM DEVICES
GRANTED	CR00-040	USA	09/754458	04-Jan-01	6351409	26-Feb-02	MRAM WRITE APPARATUS AND METHOD
GRANTED	CR00-043	USA	09/878859	16-Oct-01	6545806	08-Apr-03	A METHOD OF WRITING TO A SCALABLE MAGNETORESISTANCE RANDOM ACCESS TO MEMORY ELEMENT
GRANTED	CR00-043	USA	10/339378	09-Jan-03	7184300	27-Feb-07	METHOD OF WRITING TO A SCALABLE MAGNETORESISTANCE RANDOM ACCESS TO MEMORY ELEMENT
GRANTED	CR00-051	USA	10/109429	28-Mar-02	6518071	11-Feb-03	A MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE AND METHOD OF FABRICATION THEREOF
GRANTED	CR00-052	USA	09/772668	30-Jan-01	6385109	07-May-02	REFERENCE VOLTAGE GENERATOR FOR MRAM AND METHOD
GRANTED	CR00-052	USA	10/090905	05-Mar-02	6496436	17-Dec-02	REFERENCE VOLTAGE GENERATOR FOR MRAM AND METHOD
GRANTED	CR00-053	USA	09/772669	30-Jan-01	6418046	09-Jul-02	MRAM ARCHITECTURE AND SYSTEM
GRANTED	CR00-053	USA	10/141161	08-May-02	6552927	22-Apr-03	MRAM ARCHITECTURE AND SYSTEM
GRANTED	CR01-004	USA	10/085816	12-Mar-02	6812040	02-Nov-04	A METHOD OF FABRICATING A SELF-ALIGNED VIA CONTACT FOR A MAGNETIC MEMORY ELEMENT
GRANTED	CR01-005	USA	10/132136	26-Apr-02	6783994	31-Aug-04	A METHOD OF FABRICATING A SELF-ALIGNED MAGNETIC TUNNELING JUNCTION AND VIA CONTACT
GRANTED	CR01-006	USA	09/793163	27-Feb-01	6392923	21-May-02	MAGNETORESISTIVE MIDPOINT GENERATOR AND METHOD
GRANTED	CR01-013	USA	10/198203	17-Jul-02	7095646	22-Aug-06	MULTI-STATE MAGNETORESISTANCE RANDOM ACCESS CELL WITH IMPROVED MEMORY STORAGE DENSITY
FILED	CR01-019	USA	11/212321	25-Aug-05			MULTI-STATE MAGNETORESISTANCE RANDOM ACCESS CELL WITH IMPROVED MEMORY STORAGE DENSITY
GRANTED	CR01-020	USA	09/835269	22-Aug-01	6829158	07-Dec-04	MAGNETORESISTIVE LEVEL GENERATOR AND METHOD
GRANTED	CR01-021	USA	10/051646	18-Jan-02	6512689	28-Jan-03	MRAM WITHOUT ISOLATION DEVICES
GRANTED	CR01-022	USA	10/010363	13-Nov-01	6720597	13-Apr-04	CLADDING OF A CONDUCTIVE INTERCONNECT FOR PROGRAMMING A MRAM DEVICE USING MULTIPLE MAGNETIC LAYERS
GRANTED	CR01-023	USA	09/978860	16-Oct-01	6531723	11-Mar-03	MAGNETORESISTANCE RANDOM ACCESS MEMORY FOR IMPROVED SCALABILITY
FILED	CR01-023	USA	11/077398	10-Mar-05			MAGNETORESISTANCE RANDOM ACCESS MEMORY FOR IMPROVED SCALABILITY

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GRANTED	CR01-033	USA	10/010812	13-Nov-01	6501144	31-Dec-02	FOR IMPROVED SCALABILITY A CONDUCTIVE LINE WITH MULTIPLE TURNS FOR PROGRAMMING A MRAM DEVICE
GRANTED	CR01-034	USA	10/010574	13-Nov-01	6559511	06-May-03	NARROW GAP CLADDING FIELD ENHANCEMENT FOR LOW POWER PROGRAMMING OF A MRAM DEVICE
GRANTED	CR01-035	USA	10/184536	28-Jun-02	6936763	30-Aug-05	MAGNETIC SHIELDING FOR ELECTRONIC CIRCUITS WHICH INCLUDE MAGNETIC MATERIALS
GRANTED	CR01-038	USA	10/173907	18-Jun-02	6633498	14-Oct-03	MAGNETORESISTIVE RANDOM ACCESS MEMORY WITH REDUCED SWITCHING FIELD
GRANTED	CR94-100	USA	09/711751	10-Sep-96	5734605	31-Mar-98	MULTI-LAYER MAGNETIC TUNNELING JUNCTION MEMORY CELLS
GRANTED	CR94-100	USA	09/028426	24-Feb-98	5978257	02-Nov-99	MULTI-LAYER MAGNETIC TUNNELING JUNCTION MEMORY CELLS
GRANTED	CR95-120	USA	09/562482	24-Nov-95	5659499	19-Aug-97	MAGNETIC MEMORY AND METHOD THE REFOR
GRANTED	CR95-149	USA	09/553933	06-Nov-95	5702831	30-Dec-97	FERROMAGNETIC GMR MATERIAL
GRANTED	CR95-149	USA	09/932400	17-Sep-97	6177204	23-Jan-01	FERROMAGNETIC GMR MATERIAL
GRANTED	CR95-150	USA	09/723438	07-Oct-96	5861328	19-Jan-99	METHOD OF FABRICATING GMR DEVICES
GRANTED	CR95-177	USA	09/646897	08-May-96	5703805	30-Dec-97	METHOD FOR DETECTING INFORMATION STORED IN A MRAM CELL HAVING TWO LAYERS IN DIFFERENT THICKNESSES
GRANTED	CR95-178	USA	09/702781	23-Aug-96	5920500	06-Jul-99	A MAGNETIC RANDOM ACCESS MEMORY HAVING STACKED MEMORY CELLS AND FABRICATION METHOD THEREFOR
GRANTED	CR95-186	USA	09/862898	23-May-97	5917749	29-Jun-98	MRAM CELL REQUIRING LOW SWITCHING FIELD A MEMORY CELL STRUCTURE IN A MAGNETIC RANDOM ACCESS MEMORY AND A METHOD FOR FABRICATING THEREOF
GRANTED	CR95-188	USA	09/674387	02-Jul-96	5732016	24-Mar-98	MULTI-LAYER MAGNETIC MEMORY CELL WITH LOW SWITCHING CURRENT
GRANTED	CR96-009	USA	09/709589	09-Sep-96	5745408	28-Apr-98	MULTI-LAYER MAGNETIC MEMORY CELLS WITH IMPROVED SWITCHING CHARACTERISTICS
GRANTED	CR96-039	USA	09/723159	25-Sep-96	5768183	16-Jun-98	A MULTI-PIECE CELL AND A MRAM ARRAY INCLUDING THE CELL
GRANTED	CR96-080	USA	09/767240	13-Dec-96	5734606	31-Mar-98	A METHOD OF SELECTING A MEMORY CELL IN A MAGNETIC RANDOM ACCESS MEMORY DEVICE
GRANTED	CR96-192	USA	09/766637	13-Dec-96	5748519	05-May-98	NONVOLATILE PROGRAMMABLE SWITCH
GRANTED	CR96-203	USA	09/892641	15-Jul-97	5818316	06-Oct-98	MRAM WITH ALIGNED MAGNETIC VECTOR STRAY MAGNETIC SHIELDING FOR A NON-VOLATILE MRAM
GRANTED	CR96-218	USA	09/795488	05-Feb-97	5757695	26-May-98	MULTI-LAYER MAGNETIC RANDOM ACCESS MEMORY AND METHOD FOR FABRICATING THEREOF
GRANTED	CR96-262	USA	09/806275	25-Feb-97	5902690	11-May-99	MAGNETIC DEVICE HAVING MULTI-LAYER WITH INSULATING AND CONDUCTIVE LAYERS
GRANTED	CR97-003	USA	09/874436	16-Jun-97	5838608	17-Nov-98	
GRANTED	CR97-004	USA	09/834968	07-Apr-97	5768181	16-Jun-98	

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GRANTED	CR97-084	USA	08/949605	14-Oct-97	5831920	03-Nov-98	GRM DEVICE HAVING A SENSE AMPLIFIER PROTECTED BY A CIRCUIT FOR DISSIPATING ELECTRIC CHARGES
GRANTED	CR97-132	USA	09/031195	26-Feb-98	5930164	27-Jul-99	MAGNETIC MEMORY UNIT HAVING FOUR STATES AND OPERATING METHOD THEREOF
GRANTED	CR97-133	USA	09/144686	31-Aug-98	5940319	17-Aug-99	MAGNETIC RANDOM ACCESS MEMORY AND FABRICATING METHOD THEREOF
GRANTED	CR97-133	USA	09/339460	24-Jun-99	6174737	16-Jan-01	MAGNETIC RANDOM ACCESS MEMORY AND FABRICATING METHOD THEREOF
GRANTED	CR97-134	USA	09/032107	27-Feb-98	6211559	03-Apr-01	SYMMETRIC MAGNETIC TUNNEL DEVICE HIGH DENSITY MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE AND OPERATING METHOD THEREOF
GRANTED	CR97-139	USA	08/938366	24-Dec-97	5852574	22-Dec-98	LOW SWITCHING FIELD MAGNETORESISTIVE TUNNELING JUNCTION FOR HIGH DENSITY ARRAYS
GRANTED	CR97-145	USA	08/938788	18-Dec-97	5966323	12-Oct-99	MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE AND OPERATING METHOD THEREOF
GRANTED	CR97-152	USA	09/055731	07-Apr-98	5986925	16-Nov-99	PROCESS OF PATTERNING MAGNETIC FILMS
GRANTED	CR97-158	USA	08/986764	08-Dec-97	6024885	15-Feb-00	LOW ASPECT RATIO MAGNETORESISTIVE TUNNELING JUNCTION
GRANTED	CR97-163	USA	08/993996	18-Dec-97	5958980	28-Sep-99	METHOD TO WRITE/READ MRAM ARRAYS
GRANTED	CR98-033	USA	09/122722	27-Jul-98	6081445	27-Jun-00	METHOD OF FABRICATING AN MTJ WITH LOW AREAL RESISTANCE
GRANTED	CR98-035	USA	09/119326	20-Jul-98	6083764	04-Jul-00	LOW SWITCHING FIELD MAGNETIC TUNNELING JUNCTION FOR HIGH DENSITY ARRAYS
GRANTED	CR98-036	USA	09/118979	20-Jul-98	5953248	14-Sep-99	LOW SWITCHING FIELD MAGNETIC TUNNELING JUNCTION FOR HIGH DENSITY ARRAYS
GRANTED	CR98-038	USA	09/118977	20-Jul-98	5946227	31-Aug-99	MAGNETIC RANDOM ACCESS MEMORY ARRAY DIVIDED INTO A PLURALITY OF MEMORY BANKS
GRANTED	CR98-062	USA	09/128020	03-Aug-98	6111781	29-Aug-00	MAGNETIC RANDOM ACCESS MEMORY ARRAY DIVIDED INTO A PLURALITY OF MEMORY BANKS
GRANTED	CR98-062	USA	09/568822	10-May-00	6276831	21-Aug-01	MAGNETIC RANDOM ACCESS MEMORY WITH A REFERENCE MEMORY ARRAY
GRANTED	CR98-083	SING	200003998-2	13-Dec-99	74831	30-Apr-04	MAGNETIC RANDOM ACCESS MEMORY WITH A REFERENCE MEMORY ARRAY
GRANTED	CR98-083	USA	09/215386	18-Dec-98	6055178	25-Apr-00	EMBEDDED MRAMS INCLUDING DUAL READ PORTS
GRANTED	CR98-084	USA	09/420122	19-Oct-99	6609174	19-Aug-03	METHOD OF FABRICATING A MAGNETIC RANDOM ACCESS MEMORY
GRANTED	CR98-102	USA	09/216821	21-Dec-98	6153443	28-Nov-00	MAGNETIC ELEMENT WITH IMPROVED FIELD RESPONSE AND FABRICATING METHOD THEREOF
GRANTED	CR99-001	USA	09/356864	19-Jul-99	6292389	18-Sep-01	MAGNETIC ELEMENT WITH IMPROVED FIELD RESPONSE AND FABRICATING METHOD THEREOF
GRANTED	CR99-001	USA	09/825705	05-Apr-01	6376260	23-Apr-02	MAGNETIC RANDOM ACCESS MEMORY AND FABRICATING METHOD THEREOF
GRANTED	CR99-007	USA	09/312833	17-May-99	6165303	26-Dec-00	FABRICATING METHOD THEREOF

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GRANTED	CR99-012	USA	09/422447	21-Oct-99	6205052	20-Mar-01	MAGNETIC ELEMENT WITH IMPROVED FIELD RESPONSE AND FABRICATING METHOD THEREOF
GRANTED	CR99-018	USA	09/456615	08-Dec-99	6169689	02-Jan-01	MTJ STACKED CELL MEMORY SENSING METHOD AND APPARATUS
GRANTED	CR99-021	USA	09/460056	13-Dec-99	6285581	04-Sep-01	MRAM HAVING SEMICONDUCTOR DEVICE INTEGRATED THEREIN
GRANTED	CR99-023	USA	09/532572	22-Mar-00	6281538	28-Aug-01	MULTI-LAYER TUNNELING DEVICE WITH A GRADED STOICHIOMETRY INSULATING LAYER
GRANTED	CR99-023	USA	09/894368	27-Jun-01	6395595	28-May-02	MULTI-LAYER TUNNELING DEVICE WITH A GRADED STOICHIOMETRY INSULATING LAYER
GRANTED	CR99-024	USA	09/464807	17-Dec-99	6233172	15-May-01	MAGNETIC ELEMENT WITH DUAL MAGNETIC STATES AND FABRICATING METHOD THEREOF
GRANTED	CR99-027	USA	10/349702	22-Jan-03	6835423	28-Dec-04	MAGNETIC ELEMENT WITH INSULATING VEILS AND FABRICATING METHOD THEREOF
GRANTED	CR99-027	USA	10/830264	21-Apr-04	6912107	28-Jun-05	MAGNETIC ELEMENT WITH INSULATING VEILS AND FABRICATING METHOD THEREOF
GRANTED	CR99-034	USA	09/528971	21-Mar-00	6211090	03-Apr-01	METHOD OF FABRICATING FLUX CONCENTRATING LAYER FOR USE WITH MAGNETORESISTIVE RANDOM ACCESS MEMORIES
GRANTED	CR99-035	USA	09/540794	31-Mar-00	6205073	20-Mar-01	CURRENT CONVEYOR AND METHOD FOR READOUT OF MTJ MEMORIES
GRANTED	CR99-036	USA	09/642350	21-Aug-00	6544601	08-Apr-03	METHOD OF FABRICATING THERMALLY STABLE MTJ CELL AND APPARATUS
GRANTED	CR99-037	USA	09/532721	22-Mar-00	6469926	22-Oct-02	MAGNETIC ELEMENT WITH AN IMPROVED MAGNETORESISTANCE RATIO AND FABRICATING METHOD THEREOF
GRANTED	CR99-037	USA	10/224253	20-Aug-02	6750068	15-Jun-04	MAGNETIC ELEMENT WITH AN IMPROVED MAGNETORESISTANCE RATIO AND FABRICATING METHOD THEREOF
FILED	MT10037TS	USA	11/438541	22-May-06			NON-VOLATILE MEMORY CELL AND METHODS THEREOF
GRANTED	MT10038TS	USA	11/422774	07-Jun-05	7292484	06-Nov-07	SENSE AMPLIFIER WITH MULTIPLE BITS SHARING A COMMON REFERENCE
FILED	MT10149ZP	USA	11/801129	15-Nov-06			MAGNETIC TUNNEL JUNCTION STRUCTURE AND METHOD
FILED	MT10154ZP	USA	11/444089	31-May-06			MRAM SYNTHETIC ANTIFERROMAGNET STRUCTURE SPIN-TRANSFER BASED MRAM WITH REDUCED CRITICAL CURRENT DENSITY
FILED	MT10245ZP	USA	11/511691	28-Aug-06			ELECTRONIC ASSEMBLY HAVING MAGNETIC TUNNEL JUNCTION VOLTAGE SENSORS AND METHOD FOR FORMING SAME
FILED	MT10269ZP	USA	11/590276	30-Oct-06			MAGNETIC TUNNEL JUNCTION SENSOR WITH MOVEABLE CLADDING
FILED	MT10270ZP	USA	11/584473	19-Oct-06			MAGNETIC TUNNEL JUNCTION MEMORY AND METHOD WITH ETCH-STOP LAYER
FILED	MT10304ZP	USA	11/584411	19-Oct-06			

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FILED	MT10311ZP	USA	11/7355498	30-May-07	MAGNETOELECTRONIC DEVICE HAVING ENHANCED PERMEABILITY DIELECTRIC AND METHOD OF MANUFACTURE
FILED	MT10325ZP	USA	11/7339825	24-Apr-07	MAGNETORESISTIVE DEVICE AND METHOD OF PACKAGING SAME
FILED	MT10391ZP	USA	11/7369960	18-Apr-07	SPIN-TRANSFER MRAM STRUCTURE AND METHODS
FILED	MT10400ZP	USA	11/6783346	23-Feb-07	MRAM MEMORY CONDITIONING
FILED	MT10422ZP	USA	11/679982	26-Feb-07	MRAM FREE LAYER SYNTHETIC ANTIFERROMAGNET STRUCTURE AND METHODS
FILED	MT10430ZP	USA	11/689722	22-Mar-07	MRAM TUNNEL BARRIER STRUCTURE AND METHODS
FILED	MT10510ZP	USA	11/633044	15-Aug-07	METHODS AND APPARATUS FOR A SYNTHETIC ANTI-FERROMAGNET STRUCTURE WITH IMPROVED THERMAL STABILITY
FILED	MT10511ZP	USA	11/938816	13-Nov-07	METHODS AND STRUCTURES FOR EXCHANGE-COUPLED MAGNETIC MULTI-LAYER STRUCTURE WITH IMPROVED OPERATING TEMPERATURE BEHAVIOR
FILED	MT10513ZP	USA	11/740066	25-Apr-07	ENHANCED PERMEABILITY DEVICE STRUCTURES AND METHOD
FILED	MT10651ZP	USA	11/664409	28-Sep-07	ELECTRONIC DEVICE INCLUDING A MAGNETO-RESISTIVE MEMORY DEVICE AND A PROCESS FOR FORMING THE ELECTRONIC DEVICE
FILED	MT10679ZP	USA	11/848053	30-Aug-07	TWO-AXIS MAGNETIC FIELD SENSOR
FILED	MT10743ZP	USA	11/870858	11-Oct-07	MAGNETIC ELEMENT HAVING REDUCED CURRENT DENSITY
FILED	MT10815ZP	USA	12/117396	08-May-08	TWO-AXIS MAGNETIC FIELD SENSOR WITH MULTIPLE PINNING DIRECTIONS
FILED	MT10822ZP	USA	12/055482	26-Mar-08	IMPROVED MAGNETIC SENSOR DESIGN FOR SUPPRESSION OF BARKHAUSEN NOISE
FILED	MT10900ZP	USA	12/035011	21-Feb-08	MAGNETIC TUNNEL JUNCTION DEVICE
GRANTED	SC10553P	USA	09/119537	20-Jul-98	LOW RESISTANCE MTJ
GRANTED	SC10553P	USA	09/639746	14-Aug-00	METHOD OF MAKING A LOW RESISTANCE MTJ SYSTEM AND METHOD FOR PROGRAMING A MAGNETORESISTIVE MEMORY DEVICE
GRANTED	SC10977TC	USA	09/675204	29-Sep-00	AN ANALOG FUNCTIONAL MODULE USING MAGNETORESISTIVE MEMORY TECHNOLOGY
GRANTED	SC10978TC	USA	09/675202	29-Sep-00	CHARGE CONSERVING WRITE METHOD AND SYSTEM FOR AN MRAM
GRANTED	SC11036TH	USA	09/546367	10-Apr-00	PROGRAMMABLE OSCILLATOR USING MAGNETORESISTIVE MEMORY TECHNOLOGY
GRANTED	SC11125TC	USA	09/675182	29-Sep-00	AN ANALOG TO DIGITAL CONVERTER USING MAGNETORESISTIVE MEMORY TECHNOLOGY
GRANTED	SC11130TC	USA	09/675183	29-Sep-00	PROGRAMMABLE RESISTIVE CIRCUIT USING MAGNETORESISTIVE MEMORY TECHNOLOGY
GRANTED	SC11217TC	USA	09/675203	29-Sep-00	MAGNETORESISTIVE MEMORY TECHNOLOGY

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GRANTED	SC11235TC	USA	09/675181	29-Sep-00	5225933	01-May-01	DIGITAL TO ANALOG CONVERTER USING MAGNETORESISTIVE MEMORY TECHNOLOGY
GRANTED	SC11251TP	USA	09/713734	15-Nov-00	6555858	29-Apr-03	SELF-ALIGNED MAGNETIC CLAD WRITE LINE AND ITS METHOD OF FORMATION
GRANTED	SC11251TP	USA	10/378348	03-Mar-03	6916669	12-Jul-05	SELF-ALIGNED MAGNETIC CLAD WRITE LINE AND ITS METHOD OF FORMATION
GRANTED	SC12001TP	USA	10/304625	26-Nov-02	6944052	13-Sep-05	MAGNETORESISTIVE RANDOM ACCESS MEMORY (MRAM) CELL HAVING A DIODE WITH ASYMMETRICAL CHARACTERISTICS
GRANTED	SC12011TC	USA	10/184720	28-Jun-02	6711068	23-Mar-04	BALANCED LOAD MEMORY AND METHOD OF OPERATION
GRANTED	SC12012TC	USA	10/186141	28-Jun-02	6693824	17-Feb-04	CIRCUIT AND METHOD OF WRITING A TOGGLE MEMORY
GRANTED	SC12015TC	USA	10/185868	28-Jun-02	6909964	07-Jun-05	MRAM ARCHITECTURE WITH ELECTRICALLY ISOLATED READ AND WRITE CIRCUITRY
GRANTED	SC12015TC	USA	11/076523	09-Mar-05	7154772	26-Dec-06	MRAM ARCHITECTURE WITH ELECTRICALLY ISOLATED READ AND WRITE CIRCUITRY
GRANTED	SC12065ZP	USA	10/306250	27-Nov-02	6885074	26-Apr-05	CLADDED CONDUCTOR FOR USE IN A MAGNETOELECTRONICS DEVICE AND METHOD FOR FABRICATING THE SAME
GRANTED	SC12065ZP	USA	11/082617	16-Mar-05	7105363	12-Sep-06	CLADDED CONDUCTOR FOR USE IN A MAGNETOELECTRONICS DEVICE AND METHOD FOR FABRICATING THE SAME
GRANTED	SC12095TH	USA	10/230690	29-Aug-02	7170706	30-Jan-07	HARD DISK SYSTEM WITH NON-VOLATILE IC BASED MEMORY FOR STORING DATA
GRANTED	SC12099TC	USA	10/185075	28-Jun-02	6657889	02-Dec-03	MEMORY HAVING WRITE CURRENT RAMP RATE CONTROL
GRANTED	SC12158TC	USA	10/185566	28-Jun-02	6760266	06-Jul-04	SENSE AMPLIFIER AND METHOD FOR PERFORMING A READ OPERATION IN A MRAM
GRANTED	SC12159TC	USA	10/184811	28-Jun-02	6744663	01-Jun-04	CIRCUIT AND METHOD FOR READING A TOGGLE MEMORY CELL
GRANTED	SC12183ZP	USA	10/324716	19-Dec-02	6943038	13-Sep-05	METHOD FOR FABRICATING A FLUX CONCENTRATING SYSTEM FOR USE IN A MAGNETOELECTRONICS DEVICE
GRANTED	SC12183ZP	USA	11/125955	09-May-05	7279341	09-Oct-07	METHOD FOR FABRICATING A FLUX CONCENTRATING SYSTEM FOR USE IN A MAGNETOELECTRONICS DEVICE
GRANTED	SC12214TC	USA	10/185888	28-Jun-02	6714440	30-Mar-04	MEMORY ARCHITECTURE WITH WRITE CIRCUITRY AND METHOD THEREFOR
GRANTED	SC12217TC	USA	10/185488	28-Jun-02	6711052	23-Mar-04	MEMORY HAVING A PRECHARGE CIRCUIT AND METHOD THEREFOR
GRANTED	SC12258ZP	USA	10/331053	27-Dec-02	6888743	03-May-05	MRAM ARCHITECTURE
GRANTED	SC12258ZP	USA	10/679134	02-Oct-03	6909931	21-Jun-05	MRAM ARCHITECTURE
GRANTED	SC12293ZK	USA	10/746014	23-Dec-03	7333360	19-Feb-08	MRAM AND METHODS FOR READING THE MRAM APPARATUS FOR PULSE TESTING A MRAM DEVICE AND METHOD THEREFORE

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GRANTED	SC12299ZP	USA	10/309514	03-Dec-02	6806127	19-Oct-04	METHOD AND STRUCTURE FOR CONTACTING AN OVERLYING ELECTRODE FOR A MAGNETOELECTRONICS ELEMENT
GRANTED	SC12299ZP	USA	10/922436	19-Aug-04	7042025	09-May-06	METHOD AND STRUCTURE FOR CONTACTING AN OVERLYING ELECTRODE FOR A MAGNETOELECTRONICS ELEMENT
GRANTED	SC12301ZP	USA	10/609288	27-Jun-03	6956763	18-Oct-05	METHODS FOR FABRICATING MRAM DEVICE STRUCTURES
GRANTED	SC12304ZP	USA	10/417537	16-Apr-03	6911156	28-Jun-05	METHOD AND APPARATUS FOR SIMULATING A MAGNETORESISTIVE RANDOM ACCESS MEMORY (MRAM)
GRANTED	SC12321TS	USA	10/302203	22-Nov-02	7082389	25-Jul-06	MRAM ARCHITECTURE WITH A GROUNDED WRITE BIT LINE AND ELECTRICALLY ISOLATED READ BIT LINE
GRANTED	SC12420TC	USA	10/346256	17-Jan-03	6714442	30-Mar-04	MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICES AND METHODS FOR FABRICATING THE SAME
GRANTED	SC12594ZP	USA	10/421095	22-Apr-03	6798004	28-Sep-04	MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICES AND METHODS FOR FABRICATING THE SAME
GRANTED	SC12594ZP	USA	10/912979	05-Aug-04	7169622	30-Jan-07	METHODS FOR CONTACTING CONDUCTING LAYERS OVERLYING MAGNETOELECTRONIC ELEMENTS OF MRAM DEVICES
GRANTED	SC12595ZP	USA	10/421096	22-Apr-03	6881351	19-Apr-05	METHODS FOR CONTACTING CONDUCTING LAYERS OVERLYING MAGNETOELECTRONIC ELEMENTS OF MRAM DEVICES
FILED	SC12595ZP	USA	11/050191	02-Feb-05			MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE STRUCTURES AND METHODS FOR FABRICATING THE SAME
GRANTED	SC12596ZP	USA	10/417351	16-Apr-03	6784510	31-Aug-04	MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE STRUCTURES AND METHODS FOR FABRICATING THE SAME
GRANTED	SC12596ZP	USA	10/885869	06-Jul-04	6890770	10-May-05	MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE STRUCTURES AND METHODS FOR FABRICATING THE SAME
GRANTED	SC12636TC	USA	10/656676	05-Sep-03	6842365	11-Jan-05	WRITE DRIVER FOR A MAGNETO-RESISTIVE MEMORY
GRANTED	SC12662TC	USA	10/401195	27-Mar-03	6667899	23-Dec-03	MAGNETIC MEMORY AND METHOD OF BI-DIRECTIONAL WRITE CURRENT PROGRAMMING
GRANTED	SC12691ZC	USA	10/737114	16-Dec-03	7088608	08-Aug-06	REDUCING POWER CONSUMPTION DURING MRAM WRITES USING MULTIPLE CURRENT LEVELS
GRANTED	SC12894TC	USA	10/656646	05-Sep-03	6859388	22-Feb-05	CIRCUIT FOR WRITE FIELD DISTURBANCE CANCELLATION IN AN MRAM AND METHOD OF OPERATION
GRANTED	SC12908ZP	USA	10/730239	08-Dec-03	7031183	18-Apr-06	MRAM DEVICE INTEGRATED WITH OTHER TYPES OF CIRCUITRY
FILED	SC13021ZP	USA	10/702909	05-Nov-03			COMPOSITIONS AND METHODS FOR THE ELECTROLESS DEPOSITION OF NIFE ON A WORK

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GRANTED	SC130352P	USA	10/740336	18-Dec-03	6946697	20-Sep-05							SYNTHETIC ANTIFERRIMAGNET STRUCTURES FOR USE IN MTJ'S IN MRAM TECHNOLOGY
GRANTED	SC130352P	USA	11/132149	15-Jul-05	7226796	05-Jun-07							SYNTHETIC ANTIFERROMAGNET STRUCTURES FOR USE IN MTJ'S IN MRAM TECHNOLOGY
GRANTED	SC130692P	USA	11/048015	31-Jan-05	7087972	08-Aug-06							MAGNETOELECTRONIC DEVICES UTILIZING PROTECTIVE CAPPING LAYERS AND METHODS OF FABRICATING THE SAME
GRANTED	SC130932P	USA	10/993196	18-Nov-04	7105903	12-Sep-06							METHODS AND STRUCTURES FOR ELECTRICAL COMMUNICATION WITH AN OVERLYING ELECTRODE FOR A SEMICONDUCTOR ELEMENT
GRANTED	SC13123TC	USA	10/736852	16-Dec-03	7370260	06-May-08							MRAM HAVING ERROR CORRECTION CODE CIRCUITRY AND METHOD THEREFOR
GRANTED	SC13159TC	USA	10/806612	23-Mar-04	7266486	04-Sep-07							MAGNETORESISTIVE RANDOM ACCESS MEMORY SIMULATION
GRANTED	SC13230TC	USA	10/924631	24-Aug-04	7012841	14-Mar-06							CIRCUIT AND METHOD FOR CURRENT PULSE COMPENSATION
GRANTED	SC133402P	USA	10/997118	24-Nov-04	7129098	31-Oct-06							REDUCED POWER MAGNETORESISTIVE RANDOM ACCESS MEMORY ELEMENTS
GRANTED	SC133402P	USA	11/581951	16-Oct-06	7329935	12-Feb-08							REDUCED POWER MAGNETORESISTIVE RANDOM ACCESS MEMORY ELEMENTS
GRANTED	SC133412P	USA	10/971741	22-Oct-04	7149106	12-Dec-06							SPIN-TRANSFER BASED MRAM USING ANGULAR-DEPENDENT SELECTIVITY
GRANTED	SC133432P	USA	10/899610	26-Jul-04	7098495	29-Aug-06							MAGNETIC TUNNEL JUNCTION ELEMENT STRUCTURES AND METHODS FOR FABRICATING THE SAME
GRANTED	SC13434TC	USA	11/130351	16-May-05	7245527	17-Jul-07							NONVOLATILE MEMORY SYSTEM USING MAGNETORESISTIVE RANDOM ACCESS MEMORY (MRAM)
GRANTED	SC134812P	USA	11/066884	24-Feb-05	7285835	23-Oct-07							LOW POWER MAGNETOELECTRONIC DEVICE STRUCTURES UTILIZING ENHANCED PERMEABILITY MATERIALS
FILED	SC134812P	USA	11/867189	04-Oct-07									LOW POWER MAGNETOELECTRONIC DEVICE STRUCTURES UTILIZING ENHANCED PERMEABILITY MATERIALS
GRANTED	SC134912C	USA	11/118145	29-Apr-05	7158407	02-Jan-07							TRIPLE PULSE METHOD FOR MRAM TOGGLE BIT CHARACTERIZATION
GRANTED	SC135322P	USA	10/977003	27-Oct-04	7144744	05-Dec-06							MAGNETORESISTIVE RANDOM ACCESS MEMORY DEVICE STRUCTURES AND METHODS FOR FABRICATING THE SAME
FILED	SC13653TC	USA	11/047544	31-Jan-05									TOGGLE MEMORY BURST
GRANTED	SC13879TC	USA	11/297202	07-Dec-05	7280388	09-Oct-07							MRAM WITH A WRITE DRIVER AND METHOD THEREFOR
FILED	SC13879TC	USA	11/848070	30-Aug-07									MRAM WITH A WRITE DRIVER AND METHOD THEREFOR
GRANTED	SC13955TC	USA	11/166139	24-Jun-05	7246630	29-May-07							ANTIFUSE CIRCUIT

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FILED	SC139551C	USA	11/737506	19-Apr-07				ANTIFUSE CIRCUIT
GRANTED	SC139761C	USA	11/297203	07-Dec-05	7206223		17-Apr-07	MRAM MEMORY WITH RESIDUAL WRITE FIELD RESET METHOD FOR TUNNEL JUNCTION SENSOR WITH MAGNETIC CLADDING
FILED	SC140102P	USA	11/192517	29-Jul-05				MAGNETIC TUNNEL JUNCTION SENSOR
FILED	SC140112P	USA	11/192569	29-Jul-05				PASSIVE ELEMENTS IN MRAM EMBEDDED INTEGRATED CIRCUITS
GRANTED	SC140122P	USA	11/217146	31-Aug-05	7364985		04-Sep-07	MRAM EMBEDDED SMART POWER INTEGRATED CIRCUITS
GRANTED	SC140132P	USA	11/170874	30-Jun-05	7324369		29-Jan-08	MAGNETIC TUNNEL JUNCTION CURRENT SENSORS
GRANTED	SC140142P	USA	11/262053	28-Oct-05	7338543		03-Jul-07	3-D INDUCTOR AND TRANSFORMER DEVICES IN MRAM EMBEDDED INTEGRATED CIRCUITS
GRANTED	SC140152P	USA	11/147599	07-Jun-05	7262069		28-Aug-07	MAGNETIC TUNNEL JUNCTION PRESSURE SENSORS AND METHODS
FILED	SC140162P	USA	11/262064	28-Oct-05				MAGNETIC TUNNEL JUNCTION TEMPERATURE SENSORS
FILED	SC140172P	USA	11/240514	30-Sep-05				METHODS OF IMPLEMENTING MAGNETIC TUNNEL JUNCTION CURRENT SENSORS
GRANTED	SC140522P	USA	11/262054	28-Oct-05	7271011		18-Sep-07	MAGNETIC TUNNEL JUNCTION SENSOR METHOD
GRANTED	SC140582P	USA	11/192570	29-Jul-05	7220603		22-May-07	MAGNETIC TUNNEL JUNCTION TEMPERATURE SENSORS AND METHODS
FILED	SC140822P	USA	11/239884	30-Sep-05				TUNNEL JUNCTION SENSOR WITH MAGNETIC CLADDING
FILED	SC140852P	USA	11/192802	29-Jul-05				METHODS AND APPARATUS FOR A MEMORY DEVICE WITH SELF-HEALING REFERENCE BITS
FILED	SC146232P	USA	11/416850	02-May-06				MAGNETIC TUNNEL JUNCTION DEVICE WITH IMPROVED BARRIER LAYER
FILED	SC146242P	USA	11/341986	27-Jan-06				OSCILLATOR AND METHOD OF MANUFACTURE
FILED	SC146532P	USA	11/225973	13-Sep-05				METHODS AND APPARATUS FOR A SYNTHETIC ANTI-FERROMAGNET STRUCTURE WITH REDUCED TEMPERATURE DEPENDENCE
FILED	SC146792P	USA	11/406566	18-Apr-06				METHOD OF MANUFACTURING A
FILED	SC147882P	USA	11/351610	10-Feb-06				MAGNETOELECTRONIC DEVICE
GRANTED	SC91225A	USA	09/406415	27-Sep-99	6181973		20-Feb-01	MRAM CAM
GRANTED	SC91225A	USA	09/597362	19-Jun-00	6269016		31-Jul-01	MRAM CAM

PATENT