# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7163943

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST AT REEL 038710 FRAME 0845

## **CONVEYING PARTY DATA**

Name	Execution Date
JPMORGAN CHASE BANK, N.A.	02/03/2022

## **RECEIVING PARTY DATA**

Name:	WESTERN DIGITAL (FREMONT), LLC
Street Address:	3355 MICHELSON DRIVE
City:	IRVINE
State/Country:	CALIFORNIA
Postal Code:	92612
Name:	WESTERN DIGITAL TECHNOLOGIES, INC.
Street Address:	3355 MICHELSON DRIVE
City:	IRVINE
State/Country:	CALIFORNIA
Postal Code:	92612

### **PROPERTY NUMBERS Total: 843**

Property Type	Number
Patent Number:	5750275
Patent Number:	5943761
Patent Number:	5959811
Patent Number:	5984104
Patent Number:	5986978
Patent Number:	5986995
Patent Number:	5996213
Patent Number:	6002552
Patent Number:	6016290
Patent Number:	6018441
Patent Number:	6025988
Patent Number:	6034851
Patent Number:	6043959
Patent Number:	6055138
Patent Number:	6094803

PATENT REEL: 058965 FRAME: 0445

507117103

Property Type	Number
Patent Number:	6118629
Patent Number:	6125015
Patent Number:	6130779
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Patent Number:	6134089
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Patent Number:	6222707
Patent Number:	6229672
Patent Number:	6229782
Patent Number:	6230959
Patent Number:	6233116
Patent Number:	6236543
Patent Number:	6237215
Patent Number:	6249404
Patent Number:	6275354
Patent Number:	6282056
Patent Number:	6296955
Patent Number:	6304414
Patent Number:	6310746
Patent Number:	6310750

Property Type	Number
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Patent Number:	6317297
Patent Number:	6330136
Patent Number:	6330137
Patent Number:	6333830
Patent Number:	6339518
Patent Number:	6349014
Patent Number:	6351355
Patent Number:	6353318
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Patent Number:	6369983
Patent Number:	6376964
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Patent Number:	6479096

Property Type	Number
Patent Number:	6483662
Patent Number:	6487040
Patent Number:	6487056
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Patent Number:	6735850
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Patent Number:	6756071
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Patent Number:	7916426
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Patent Number:	8320220
Patent Number:	8320722
Patent Number:	8322022
Patent Number:	8322023
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Patent Number:	8400731
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Patent Number:	8491801
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Patent Number:	8537502

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Patent Number:	8545164
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Patent Number:	8638529
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Patent Number:	8649123
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Patent Number:	9042048
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Patent Number:	9251813
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Application Number:	12466353
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Property Type	Number
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Application Number:	13480278
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Property Type	Number
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Application Number:	14981830
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Application Number:	14994361
Application Number:	62152753

### **CORRESPONDENCE DATA**

**Fax Number:** (202)408-3141

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PATENT

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DATE SIGNED:	02/08/2022

**Total Attachments: 45** source=2-7-2022 JPM-Western Digital Freemont 4-PT#page1.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page2.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page3.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page4.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page5.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page6.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page7.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page8.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page9.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page10.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page11.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page12.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page13.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page14.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page15.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page16.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page17.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page18.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page19.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page20.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page21.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page22.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page23.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page24.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page25.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page26.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page27.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page28.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page29.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page30.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page31.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page32.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page33.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page34.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page35.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page36.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page37.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page38.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page39.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page40.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page41.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page42.tif source=2-7-2022 JPM-Western Digital Freemont 4-PT#page43.tif

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#### RELEASE OF SECURITY INTEREST IN PATENTS

This RELEASE OF SECURITY INTEREST IN PATENTS (this "Release"), dated as of February 3, 2022 (the "Effective Date"), is made by JPMorgan Chase Bank, N.A., in its capacity as Agent (the "Agent"), in favor of the grantor party identified on the signature page hereto (the "Grantor").

WHEREAS, pursuant to that certain Security Agreement, dated as of May 12, 2016, by and among the Agent, the Grantor and certain other parties thereto (as amended, amended and restated, or otherwise modified from time to time, the "Security Agreement"), the Grantor granted to the Agent, in its capacity as Agent, a lien on and security interest in and to certain collateral;

WHEREAS, pursuant to the Security Agreement, the Grantor executed and delivered a Patent Collateral Agreement, dated as of May 12, 2016 (the "<u>Patent Collateral Agreement</u>"), for recordal with the United States Patent and Trademark Office;

WHEREAS, the Patent Collateral Agreement was recorded with the United States Patent and Trademark Office on May 16, 2016 at Reel/Frame 038710/0845;

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

- 1. <u>Defined Terms</u>. All capitalized terms used, but not otherwise defined herein, shall have the respective meanings ascribed in or otherwise referenced in the Security Agreement or the Patent Collateral Agreement, as applicable.
- 2. <u>Release</u>. The Agent, without representation or warranty of any kind, hereby absolutely, unconditionally and irrevocably releases, discharges, terminates and cancels all of its lien on and security interest in and to the Patent Collateral, including the patents and patent applications set forth Schedule A attached hereto, arising under the Security Agreement and/or the Patent Collateral Agreement.
- 3. <u>Termination</u>. The Agent, without representation or warranty of any kind, terminates and cancels the Patent Collateral Agreement.
- 4. <u>Further Assurances</u>. The Agent agrees to take all further actions, and provide to the Grantor and its successors, assigns or other legal representatives, all such cooperation and assistance (including, without limitation, the execution and delivery of any and all documents or other instruments), reasonably requested by the Grantor, at the Grantor's sole cost and expense, to more fully and effectively effectuate the purposes of this Release.
- 5. <u>Governing Law</u>. This Release shall be governed exclusively under the laws of New York State, without regard to conflicts of law or choice of law principles.
- 6. <u>Successor and Assigns</u>. This Release shall be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.

IN WITNESS WHEREOF, the Agent has caused this Release to be executed by its duly authorized representative as of the Effective Date:

JPMORGAN CHASE BANK, N.A., acting in its capacity as agent for the Lenders

By:

Name: Timothy Lee

Title: Executive Director

## **Execution Version**

# **GRANTORS:**

Western Digital (Fremont), LLC Western Digital Technologies, Inc.

# **SCHEDULE A**

### U.S. PATENTS AND APPLICATIONS

Legal Title Owner: Western Digital Technologies, Inc.

No.	Title	Patent /Application Number
1.	Thin Film Heads With Insulated Laminations For Improved High Frequency Performance	5750275
2.	Method For Adjusting The Gram Load Of Head Gimbal Assemblies	5943761
3.	Magnetoresistive Transducer With Four-lead Contact	5959811
4.	Protective Carrier For Magnetic Head Assembly	5984104
5.	READ/WRITE HEAD AND METHOD FOR MAGNETIC READING AND MAGNETO-OPTICAL WRITING ON A DATA STORAGE MEDIUM	5986978
6.	HIGH NA CATADIOPTRIC FOCUSING DEVICE HAVING FLAT DIFFRACTIVE SURFACES	5986995
7.	Thin Film MR Head And Method Of Making Wherein Pole Trim Takes Place At The Wafer Level	5996213
8.	ADAPTIVE LOADING/UNLOADING SUSPENSION	6002552
9.	READ/WRITE HEAD WITH SHIFTED WAVEGUIDE	6016290
10.	Disk Drive Pivot Bearing And Actuator Arm Assembly	6018441
11.	Interconnect Adapter And Head Suspension Assembly	6025988
12.	Shorting Bar And Test Clip For Protecting Magnetic Heads From Damage Caused By Electrostatic Discharge During Manufacture	6034851
13.	Inductive Write Head Formed With Flat Yoke And Merged With magnetoresistive Read Transducer	6043959
14.	Thin Film Pedestal Pole Tips Write Head Having Narrower Lower Pedestal Pole Tip	6055138
15.	Wafer Processing Techniques for Near Field Magneto-Optical Head	6094803
16.	Magnetic Head With Aligned Pole Tips And Pole Layers Formed Of High Magnetic Moment Material	6118629
17.	HEAD GIMBAL ASSEMBLY WITH LOW STIFFNESS FLEX CIRCUIT AND ESD PROTECTION	6125015
18.	Near Field Magneto-Optical Head Made Using Wafer Processing Techniques	6130779
19.	Slider and Electro-Magnetic Coil Assembly	6130863
20.	Current Perpendicular To Plane Magnetoresistive Device With Low Resistance Lead	6134089
21.	Air Bearing Slider	6137656
22.	Magnetoresistive Sensor With Pinned SAL	6137662
23.	AIR BEARING SLIDER WITH REDUCED STICTION	6144528

No.	Title	Patent /Application Number
24.	Magnetic Head Suspension Assembly Including An Intermediate Flexible Member That Supports An Air Bearing Slider With A Magnetic Transducer For Testing	6151196
25.	Head Suspension Having Tabs And Force Isolation Welds For Gram Load Reduction During Swaging	6160684
26.	Synthetic Spin-Valve Device Having High Resistivity Anti Parallel Coupling Layer	6175476
27.	Thin Film Device Having A Small Element With Well Defined Corners And Method Of Fabrication	6178066
28.	Magnetic Write Head And Method For Making Same	6178070
29.	READ/WRITE HEAD WITH A LIMITED RANGE OF MOTION RELATIVE TO A LOAD BEAM	6181525
30.	High Numerical Aperture Optical Focusing Device for Use in Data Storage Systems	6185051
31.	SPIN VALVE SENSOR WITH ANTIFERROMAGNETIC AND MAGNETOSTATICALY COUPLED PINNIN STRUCTURE	6185077
32.	BIAS LAYERS WHICH ARE FORMED ON UNDERLAYERS PROMOTING IN-PLANE ALIGNMENT OF THE C-AXIS OF COBALT USED IN MAGNETORESISTIVE TRANSDUCERS	6185081
33.	Apparatus and Method of Device Stripe Height Control	6193584
34.	Thin Film MR Head And Method Of making Wherein Pole Trim Takes Place At The Wafer Level	6195229
35.	MR SENSOR WITH BLUNT CONTIGOUS JUNCTION AND SLOW-MILLING-RATE READ GAP	6198608
36.	CPP Magnetoresistive Device With Reduced Edge Effect And Method For Making Same	6198609
37.	SYSTEM FOR BIASING A SYNTHETIC FREE LAYER IN A MAGNETORESISTANCE SENSOR	6201673
38.	High NA Solid Catadioptric Focusing Device Having a Flat Kinoform Phase Profile	6212153
39.	Apparatus And Method For Adhesive Bridge Suspension Attachment	6215625
40.	BOTTOM OR DUAL SPIN VALVE HAVING A SEED LAYER THAT RESULTS IN AN IMPROVED ANTIFERROMAGNETIC LAYER	6222707
41.	High Gram Load Air Bearing Geometry For A Tripad Slider	6229672
42.	High Numerical Aperture Optical Focusing Device for Use in Data Storage Systems	6229782
43.	Gram Load Change Reduction Isolation Load Beam/Suspension	6230959
44.	Thin Film Write Head With Improved Laminated Flux Carrying Structure and Method Of Fabrication	6233116
45.	DURABLE LANDING PADS FOR AN AIR-BEARING SLIDER	6236543
46.	Test Fixture For Positioning And Testing A Magnetic Head	6237215

No.	Title	Patent /Application Number
47.	HEAD GIMBAL ASSEMBLY WITH A FLEXIBLE PRINTED CIRCUIT HAVING A SERPENTINE SUBSTRATE	6249404
48.	Magnetic Head With A Toroidal Coil Encompassing Only One Yoke Layer	6275354
49.	Tapered Stitch Pole Writer for High Density Magnetic Recording	6282056
50.	High moment and high permeability transducer structures and formation	6296955
51.	Thin Film Magnetic Write Head Having An Ultra-Low Stack Height and Method Of Manufacturing Same	6304414
52.	Piezoelectric Vibration Damping For Disk Drives	6310746
53.	Disk Drive Actuator Arm With Microactuated Read/Write Head Positioning	6310750
54.	Advanced Pole Trim Writer with High Moment P1 and Low APEX Angle	6317290
55.	CURRENT PINNED DUAL SPIN VALVE WITH SYNTHETIC PINNED LAYERS	6317297
56.	Magnetic Read Sensor With SDT Tri-Layer And Method For Making Same	6330136
57.	MAGNETORESISTIVE READ SENSOR INCLUDING A CARBON BARRIER LAYER AND METHOD FOR MAKING SAME	6330137
58.	Low Resistance Coil Structure for High Speed Writer	6333830
59.	Air bearing slider with shaped taper	6339518
60.	Magnetic Read/Write Device With Insulated Coil Layer Recessed Into Pole	6349014
61.	Spin Valve Device With Improved Thermal Stability	6351355
62.	Hard Biased Current Perpendicular To The Plane Sensor And Method Of Fabrication Thereof	6353318
63.	Thin Film Write Head For Improved High Speed and High Density Recording	6353511
64.	Air Bearing Facilitating Load/Unload Of A Magnetic Read/Write Head	6356412
65.	WRITE HEAD HAVING A DRY-ETCHABLE ANTIREFLECTIVE INTERMEDIATE LAYER	6369983
66.	Collocated Rotating Flexure Microactuator For Dual-Stage Servo In Disk Drives	6376964
67.	High Numerical Aperture Optical Focusing Device Having a Conical Incident Facet and a Parabolic Reflector for Use in Data Storage Systems	6377535
68.	A FICTURE FOR ASSEMBLING AND TESTING A READ/WRITE HEAD WITH A GIMBAL BALL ASSEMBLY	6378195
69.	Hybrid Dual Spin Valve Sensor and Method For Making Same	6381105

No.	Title	Patent /Applicatio Number
70.	Coil Structure with High Thermal Conductor Buffer in Writer of Merged Head	6396660
71.	Laser Mounting for a Thermally Assisted GMR Head	6404706
72.	Method of Building an Ultra-Small Advanced Writer	6417998
73.	Magnetoresistive Head Stabilized Structure and Method of Fabrication Thereof	6417999
74.	DUAL SYNTHETIC SPIN VALVE SENSOR USING CURRENT PINNING	6418000
75.	SPIN-DEPENDENT TUNNELING SENSORS FOR MAGNETIC RAM (MRAM)	6418048
76.	Disk Drive Actuator Arm With Microactuated Read/Write Head Positioning	6421211
77.	Thin Film Read Head Structure With Improved Bias Magnet-to-Magnetoresistive Element Interface and Method Of Fabrication	6421212
78.	METHOD AND SYSTEM FOR PROVIDING ELECTROSTATIC DISCHARGE PROTECTION FOR FLEX-ON SUSPENSION ASSEMBLY, OR CALBE-ON SUSPENSION	6424505
79.	SPIN VALVE MAGNETORESISTIVE SENSOR FOR HIGH TEMPERATURE ENVIRONMENT USING IRIDIUM MANGANESE	6424507
80.	LAMINATED CARBON-CONTAINING OVERCOATS FOR INFORMATION STORAGE SYSTEM TRANSDUCERS	6433965
81.	Structure and Method for Redeposition Free Thin Film CPP Read Sensor Fabrication	6433970
82.	Airflow-Assisted Ramp Loading And Unloading In Hard Disk Drives	6437945
83.	Triple Step Technique For Air-Bearing Fabrication	6445542
84.	METHOD AND SYSTEM FOR PROVIDING EDGE-JUNCTION TMR FOR HIGH AREAL DENSITY MAGNETIC RECORDING	6445554
85.	METHOD AND SYSTEM FOR REDUCING ASSYMETRY IN A SPIN VALVE HAVING A SYNTHETIC PINNED LAYER	6447935
86.	Thin Film Write Head With Interlaced Coil Winding And Method of Fabrication	6466401
87.	Compact MR Write Structure	6466402
88.	Magnetic Read/Write Device With Insulated Coil Layers Recessed Into Pole	6466404
89.	Method And System For Providing A Magnetoresistive Head Having Higher Efficiency	6468436
90.	Spin Valve Device With Improved Exchange Layer Defined Track Width and Method of Fabrication	6469877
91.	Method for Manufacturing a GMR Spin Valve Having A Smooth Interface Between Magnetic And Non-Magnetic Layers	6479096

No.	Title	Patent /Application Number
92.	High Density Multi-Coil Magnetic Write Head Having A Reduced Yoke Length And Short Flux Rise Time	6483662
93.	Thin film head with self-aligned pole tips	6487040
94.	Thin film read head structure with improved bias magnet-to-magnetoresistive element interface and method of fabrication	6487056
95.	Thin Film Write Head With Improved Yoke to Pole Stitch	6490125
96.	Magnetic Write Head Having A Split Coil Structure	6496330
97.	Data Storage Retrieval Apparatus With Thin Film Read Head Having Planarized Extra Gap an Shield Layers And Method Of Fabrication Thereof	6496334
98.	Disk Drive Actuator Arm with Microactuated Read/Write Head Positioning	6512659
99.	VERTICAL GIANT MAGNETORESISTANCE SENSOR UTILIZING AN INSULATING BIAS LAYER	6512661
100.	HIGH SENSITIVITY COMMON-SOURCE AMPLIFIER MRAM CELL, MEMORY ARRAY AN READ-WRITE SCHEME	6512690
101.	METHOD AND SYSTEM FOR PROVIDING EDGE-JUNCTION TMR UTILIZING A HARD MAGNET PINNED LAYER	6515573
102.	ACTIVE REFLECTION AND ANTI-REFLECTION OPTICAL SWITCH	6515791
103.	Low Profile Head Gimbal Assembly With Shock Limiting And Load/Unload Capability and Method Of Manufacture Thereof	6538850
104.	Read/Write Control Circuit for Magnetic Tunnel Junction MRAM	6552928
105.	METHOD AND SYSTEM FOR PROVIDING A TAPE HEAD SUBASSEMBLY STRUCTURE HAVING AN INTEGRATED WEAR BAR AND OUTRIGGER RAIL	6577470
106.	SiC Overcoat & Method For Sliders	6583953
107.	Magnetoresistive Element and Magnetic Head	6597548
108.	SPIN DEPENDENT TUNNELING BARRIERS DOPED WITH MAGNETIC PARTICLES	6639291
109.	SLIDER FOR LOAD/UNLOAD OPERATION WITH HIGH SITFFNESS AND LOW UNLOAD FORCE	6646832
110.	THIN FILM INDUCTIVE READ/WRITE HEAD WITH A SLOPED POLE	6657816
111.	SPIN-DEPENDENT TUNNELING SENSOR WITH LOW RESISTANCE METAL OXIDE TUNNEL BARRIER	6661625
112.	MRAM MEMORY ARRAY HAVING MERGED WORD LINES	6680863
113.	Top Spin Valve With Improved Seed Layer	6687098
114.	Temperature Dependent Write Current Source For Magnetic Tunnel Junction MRAM	6687178

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115.	Designs of Reference Cells for Magnetic Tunnel Junction (MTJ) MRAM	6697294
116.	NARROW TRACK WIDTH MAGNETORESISTIVE SENSOR AND METHOD OF MAKING	6700759
117.	Shear Mode Multilayered Collocated Micro-Actuator For Dual-Stage Servo Controllers In Disk Drives	6704158
118.	METHOD AND SYSTME FOR PROVIDING ESD PROTECTION USING DIODES AND A GROUNDING STRIP IN A HEAD GIMBAL ASSEMBLY	6704173
119.	MAGNETIC TUNNELING JUNCTION WITH IMPROVED POWER CONSUMPTION	6707083
120.	Airflow-Assisted Ramp Loading And Unloading Of Sliders In Hard Disk Drives	6717773
121.	INDUCTIVE TRANSDUCER WITH STITCHED POLE TIP AND PEDESTAL DEFINING ZERO THROAT HEIGHT	6721138
122.	Non-Corrosive GMR Slider For Proximity Recording	6721142
123.	TUNNELING MAGNETORESISTANCE SPIN-VALVE READ SENSOR WITH LANIO3 SPACER	6721149
124.	Designs of Reference Cells for Magnetic Tunnel Junction (MTJ) MRAM	6721203
125.	Thin Film Writer With Multilayer Write Gap	6724569
126.	INDUCTIVE TRANSDUCER WITH RECESSED LEADING POLE LAYER	6724572
127.	Magnetic Head Device Manufacturing Method and Intermediate Product of Magnetic Head Device Manufacture	6729015
128.	Thin Film Read Head Structure With Improved Bias Magnet-to-Magnetoresistive Element Interface And Method Of Fabrication	6735850
129.	METHOD OF MAKING TRANSDUCER WITH INORGANIC NONFERROMAGNETIC APEX REGION	6737281
130.	METHOD AND SYSTEM FOR MAKING TMR JUNCTIONS	6744608
131.	SPIN DEPENDENT TUNNELING BARRIERS FORMED WITH A MAGNETIC ALLOY	6747301
132.	Inductive Transducer With Reduced Pole Tip Protrusion	6751055
133.	TRANSDUCERS FOR PERPENDICULAR RECORDING WITH INDUCTIVE CANCELLATION AT MR SENSOR	6754049
134.	METHOD FOR MANUFACTURING A GMR SPIN VALVE HAVING A SMOOTH INTERFACE BETWEEN MAGNETIC AND NON-MAGNETIC LAYERS	6756071
135.	ELECTROSTATIC MICROELECTROMECHANICAL (MEM) MICROACTUATOR FOR PRECISE READ/WRITE HEAD POSITIONING	6757140
136.	MICROACTUATOR WITH OFFSETTING HINGES AND METHOD FOR HIGH-RESOLUTION POSITIONING OF MAGNETIC READ/WRITE HEAD	6760196

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137.	Data Storage and Retrieval Apparatus With Thin Film Read Head Having Inset Extra Gap Insulation Layer And Method Of Fabrication	6762910
138.	Ultra-Short Yoke & Ultra-Low Stack Height Writer and Method of Fabrication	6765756
139.	SLIDER WITH HIGH PITCH-STIFFNESS AIR BEARING DESIGN	6771468
140.	METHOD OF MAKING A MAGNETIC HEAD WITH ALIGNED POLE TIPS	6775902
141.	MAGNETICALLY SOFT, HIGH SATURATION MAGNETIZATION LAMINATES OF IRON-COBALT-NITROGEN AND IRON-NICKEL	6778358
142.	Data storage system having an optical processing flying head	6781927
143.	METHOD FOR PROVIDING PEDESTAL-DEFINED ZERO THROAT WRITERS (as amended)	6785955
144.	PERPENDICULAR RECORDING WRITE HEAD HAVING A RECESSED MAGNETIC ADJUNCT POLE AND METHOD OF MAKING THE SAME	6791793
145.	Spin-Valve Magnetic Transducing Element and Magnetic Head Having Free Layer With Negative Magnetostriction	6791807
146.	METHOD OF FORMING A SLIDER/SUSPENSION ASSEMBLY	6796018
147.	Write Head Architecture For Improved Manufacturablity	6798616
148.	Spin-Valve Magnetoresistance Sensor and Thin-Film Magnetic Head	6798625
149.	DATA STORAGE AND RETRIEVAL APPARATUS WITH THIN FILM READ HEAD HAVING A PLANAR SENSOR ELEMENT AND AN EXTRA GAP AND METHOD OF FABRICATION THEREOF	6801408
150.	Dual Stripe Spin Valve Sensor Without Antiferromagnetic Pinning Layer	6801411
151.	Magnetic Tunnel Junction MRAM With Improved Stability	6803615
152.	WAFER SERIALIZATION MANUFACTURING PROCESS FOR READ/WRITE HEADS USING PHOTOLITHOGRAPHY AND SELECTIVE REACTIVE ION ETCHING	6806035
153.	ENCLOSED PIEZOELECTRIC MICROACTUATORS COUPLED BETWEEN HEAD AND SUSPENSION	6807030
154.	Piezoelectric Actuated Optical Switch	6807332
155.	MAGNETIC HEADS FOR PERPENDICULAR RECORDING WITH TRAPEZOIDAL POLE TIPS	6809899
156.	MAGNETORESISTIVE SENSORS HAVING SUBMICRON TRACK WIDTHS AND METHOD OF MAKING	6816345
157.	MAGNETIC RAM CELL WITH AMPLIFICATION CIRCUITRY AND MRAM MEMORY ARRAY FORMED USING THE MRAM CELLS	6829160

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158.	METHOD OF FORMING A MAGNETORESISTIVE DEVICE	6829819
159.	Airflow-Assisted Ramp Loading And Unloading Of Sliders In Hard Disk Drives	6856489
160.	HYBRID DIFFUSER FOR MINIMIZING THERMAL POLE TIP PROTRUSION AND READER SENSOR TEMPERATURE	6859343
161.	Magnetic Write Element Having A Well Defined Coil Wall Structure And A Method Of Manufacturing the Same	6859997
162.	DOUBLE WINDING TWIN COIL FOR THIN-FILM HEAD WRITER	6861937
163.	Inductive Writer With Flat Top Pole & Pedestal Defined Zero Throat	6870712
164.	WRITE HEAD WITH HIGH MOMENT FILM LAYER HAVING TAPERED PORTION EXTENDING BEYOND WRITE GAP LAYER	6873494
165.	SIDE RAIL SLIDER HAVING IMPROVED FLY HEIGHT CONTROL	6873496
166.	HIGH CAPACITY MRAM MEMORY ARRAY ARCHITECTURE	6873547
167.	Air Bearing Having a Cavity Patch Surface Coplanar with a Leading Edge Pad Surface	6879464
168.	SHIELDED MAGNETIC RAM CELLS	6888184
169.	METHOD AND SYSTEM FOR PROVIDING HIGH SENSITIVITY GIANT MAGNETORESISTIVE SENSORS	6888704
170.	TECHNIQUE FOR REDUCING POLE TIP PROTRUSION IN A MAGNETIC WRITE HEAD AND GMR STRIPE TEMPERATURE IN AN ASSOCIATED READ HEAD STRUCTURE UTILIZING ONE OR MORE INTERNAL DIFFUSER REGIONS	6894871
171.	Compact MR Write Structure	6894877
172.	WRITE HEAD HAVING A RECESSED, MAGNETIC ADJUNCT POLE FORMED ATOP A MAIN POLE, AND METHOD OF MAKING THE SAME	6906894
173.	METHOD AND SYSTEM FOR REDUCING THERMAL POLE TIP PROTRUSION	6909578
174.	WRITER WITH A HOT SEED ZERO THROAT AND SUBSTANTIALLY FLAT TOP POLE	6912106
175.	METHOD AND SYSTEM FOR PROVIDING DYNAMIC ACTUATION OF A WRITE HEAD USING A STRAIN ELEMENT	6934113
176.	MAGNETORESISTIVE SENSOR WITH OVERLAPPING LEAD LAYERS INCLUDING ALPHA TANTALUM AND CONDUCTIVE LAYERS	6934129
177.	COIL INDUCTIVE WRITER HAVING A LOW INDUCTANCE AND SHORT YOKE LENGTH	6940688

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178.	UV CURABLE AND ELECTRICALLY CONDUCTIVE ADHESIVE FOR BONDING MAGNETIC DISK DRIVE COMPONENTS	6942824
179.	MAGNETIC RECORDING HEAD WITH A SIDE SHIELD STRUCTURE FOR CONTROLLING SIDE READING OF THIN FILM READ SENSOR	6943993
180.	METHOD OF FORMING A MAGNETORESISTIVE DEVICE	6944938
181.	UV CURABLE AND ELECTRICALLY CONDUCTIVE ADHESIVE FOR BONDING MAGNETIC DISK DRIVE COMPONENTS	6947258
182.	ACTIVE FLY HEIGHT CONTROL CROWN ACTUATOR	6950266
183.	Ultra-Short Yoke And Ultra-Low Stack Height Writer And Method Of Fabrication	6954332
184.	SANDWICH DIAMOND-LIKE CARBON OVERCOAT FOR USE IN SLIDER DESIGNS OF PROXIMITY RECORDING HEADS	6956718
185.	Insulation Layer Structure For Inductive Write Heads And Method Of Fabrication	6958885
186.	PIEZOELECTRIC MICROACTUATORS WITH SUBSTANTIALLY FIXED AXIS OF ROTATION AND MAGNIFIED STROKE	6961221
187.	METHOD FOR CHARACTERIZING A PERPENDICULAR RECORDING HEAD WRITING POLE	6969989
188.	THIN FILM WRITE HEAD HAVING A LAMINATED, FLAT TOP POLE WITH BOTTOM SHAPER AND METHOD OF FABRICATION	6975486
189.	POLE STRUCTURE TO RELIEVE ADJACENT TRACK WRITING	6987643
190.	INDUCTIVE WRITE HEAD HAVING HIGH MAGNETIC MOMENT POLES AND LOW MAGNETIC MOMENT THIN LAYER IN THE BACK GAP, AND METHODS FOR MAKING	6989962
191.	MAGNETORESISTIVE SENSOR WITH OVERLAPPING LEADS HAVING DISTRIBUTED CURRENT	6989972
192.	THIN FILM RECORDING HEAD WITH A BURIED COIL PROVIDING A SHORTENED YOKE AND IMPROVED DIMENSION CONTROL	7006327
193.	METHOD FOR MAKING HIGH SPEED, HIGH AREAL DENSITY INDUCTIVE WRITE STRUCTURE	7007372
194.	SUBMICRON TRACK-WIDTH POLE-TIPS FOR ELECTROMAGNETIC TRANSDUCERS	7023658
195.	Spin Valve Type Magnetoresistance Sensor and Thin Film Magnetic Head	7026063
196.	Method and Apparatus for Measuring Write-Induced Pole Tip Protrusion	7027242

No.	Title	Patent /Application Number
197.	METHOD AND SYSTEM FOR PROVIDING A DUAL SPIN FILTER	7027268
198.	SPIN-DEPENDENT TUNNELING READ/WRITE SENSOR FOR HARD DISK DRIVES	7027274
199.	SYSTEM AND METHOD FOR MINIMIZING THERMAL POLE TIP PROTRUSION	7035046
200.	MANIPULATOR FOR MICROSCOPY SAMPLE PREPARATION AND METHODS FOR MAKING AND USE THEREOF	7041985
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228.	MAGNETORESISTIVE READ SENSOR WITH REDUCED EFFECTIVE SHIELD-TO-SHIELD SPACING	7248449
229.	FERROMAGNETIC STRUCTURE INCLUDING A FIRST SECTION SEPARATED FROM A FERROMAGNETIC LAYER BY AN ELECTRICALLY CONDUCTIVE NONMAGNETIC SPACER AND A SECOND SECTION ELONGATED RELATIVE TO THE FIRST SECTION IN AT LEAST ONE DIMENSION	7280325
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234.	MAGNETICALLY SOFT, HIGH SATURATION MAGNETIZATION LAMINATE OF IRON-COBALT-NITROGEN AND IRON-NICKEL FOR PERPENDICULAR MEDIA UNDERLAYERS	7354664
235.	METHOD FOR MANUFACTURING A GROUP OF HEAD GIMBAL ASSEMBLIES	7363697
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239.	WRITE ELEMENT WITH REDUCED YOKE LENGTH FOR ULTRA-HIGH DENSITY WRITING	7379269
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244.	MAGNETIC RECORDING HEAD WITH RESISTIVE HEATING ELEMENT AND THERMAL BARRIER LAYER	7428124
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259.	TRANSDUCER WITH POLE TIP PROTRUSION COMPENSATION LAYER	7542246
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261.	ELECTRICAL LAPPING GUIDE DISPOSED LATERALLY RELATIVE TO A SHIELD PEDESTAL	7554767
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266.	MAGNETIC SENSOR WITH UNDERLAYERS PROMOTING HIGH- COERCIVITY, IN-PLANE BIAS LAYERS	7639457
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269.	METHOD AND SYSTEM FOR PROVIDING A MAGNETIC ELEMENT HAVING A CURRENT CONFINED LAYER	7672086
270.	MAGNETORESISTIVE STRUCTURE HAVING A NOVEL SPECULAR AND BARRIER LAYER COMBINATION	7684160
271.	PERPENDICULAR MAGNETIC RECORDING HEAD HAVING NONMAGNETIC INSERTION LAYERS	7688546
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276.	PERPENDICULAR MAGNETIC RECORDING HEAD WITH DYNAMIC FLYING HEIGHT HEATING ELEMENT DISPOSED BELOW TURNS OF A WRITE COIL	7729086
277.	MAGNETIC RECORDING HEAD WITH RESISTIVE HEATING ELEMENT LOCATED NEAR THE WRITE COIL	7729087
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279.	METHOD AND SYSTEM FOR PROVIDING A MAGNETIC RECORDING MEDIA	7755861
280.	METHOD AND SYSTEM FOR FABRICATING A MAGNETIC RECORDING DEVICE	7785666
281.	HEAD INTEGRATED TOUCHDOWN SENSOR FOR HARD DISK DRIVES	7796356
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283.	METHOD AND SYSTEM FOR CLEANING MAGNETIC ARTIFACTS USING A CARBONYL REACTIVE ION ETCH	7819979
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286.	HEAD WITH AN AIR BEARING SURFACE HAVING A SHALLOW RECESSED TRAILING AIR FLOW DAM	7855854
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288.	SETTING AN OPERATING BIAS CURRENT FOR A MAGNETORESISTIVE HEAD BY COMPUTING A TARGET OPERATING VOLTAGE	7872824
289.	HEAD WITH A TRANSDUCER OVERCOAT HAVING A TRAILING AIR FLOW DAM THAT IS SHALLOWLY RECESSED FROM AN AIR BEARING SURFACE	7872833
290.	METHOD AND SYSTEM FOR PROVIDING OPTICAL PROXIMITY CORRECTION FOR STRUCTURES SUCH AS A PMR NOSE	7910267
291.	PERPENDICULAR MAGNETIC RECORDING HEAD UTILIZING A NONMAGNETIC UNDERLAYER LAYER	7911735
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294.	SYSTEM FOR MANUFACTURING A GROUP OF HEAD GIMBAL ASSEMBLIES (HGAS)	7918013
295.	MAGNETICALLY SOFT, HIGH SATURATION MAGNETIZATION LAMINATE OF IRON-COBALT-NITROGEN AND IRON-NICKEL FOR PERPENDICULAR MEDIA UNDERLAYERS	7968219
296.	METHOD AND SYSTEM FOR MEASURING MAGNETIC INTERFERENCE WIDTH	7982989
297.	METHOD AND SYSTEM FOR TESTING P2 STIFFNESS OF A MAGNETORESISTANCE TRANSDUCER AT THE WAFER LEVEL	8008912
298.	METHOD AND SYSTEM FOR MOUNTING LASERS ON ENERGY ASSISTED MAGNETIC RECORDING HEADS	8012804
299.	A METHOD FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING (PMR) HEAD	8015692
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301.	METHOD FOR SIMULTANEOUS ELECTRONIC LAPPING GUIDE (ELG) AND PERPENDICULAR MAGNETIC RECORDING (PMR) POLE FORMATION	8018678
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303.	METHOD OF MEASURING A BEVEL ANGLE IN A WRITE HEAD	8074345
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305.	PERPENDICULAR MAGNETIC RECORDING HEAD HAVING A RECESSED MAGNETIC BASE LAYER	8077434
306.	CURRENT PERPENDICULAR-TO-PLANE READ SENSOR WITH BACK SHIELD	8077435
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308.	METHOD FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING (PMR) TRANSDUCER	8079135
309.	SLIDER WITH AN AIR-BEARING SURFACE INCLUDING FOUR PRESSURE GENERATING POCKETS FOR COUNTERING DISRUPTIVE MOVEMENT	8081400
310.	MAGNETIC ELEMENT HAVING A SMALLER CRITICAL DIMENSION OF THE FREE LAYER	8081403
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314.	METROLOGY AND 3D RECONSTRUCTION OF DEVICES IN A WAFER	8097846
315.	SELF-ALIGNED METHOD FOR FABRICATING A HIGH DENSITY GMR READ ELEMENT	8104166
316.	METHOD AND SYSTEM FOR PROVIDING A MAGNETIC TRANSDUCER HAVING AN IMPROVED READ SENSOR SYNTHETIC ANTIFERROMAGNET	8116043
317.	METHOD AND SYSTEM FOR PROVIDING ENERGY ASSISTED MAGNETIC RECORDING DISK DRIVE USING A VERTICAL SURFACE EMITTING LASER	8116171
318.	METHOD AND SYSTEM FOR OPTICALLY COUPLING A LASER WITH A TRANSDUCER IN AN ENERGY ASSISTED MAGNETIC RECORDING DISK DRIVE	8125856
319.	METHOD AND SYSTEM FOR PROVIDING AN ENERGY ASSISTED MAGNETIC RECORDING HEAD IN A WAFER PACKAGING CONFIGURATION	8134794
320.	METHOD AND SYSTEM FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING HEAD UTILIZING A MASK HAVING AN UNDERCUT LINE	8136224
321.	METHOD AND SYSTEM FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING HEAD	8136225
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325.	METHOD FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING (PMR) TRANSDUCER	8146236
326.	PERPENDICULAR MAGNETIC RECORDING HEAD HAVING A POLE TIP FORMED WITH A CMP UNIFORMITY STRUCTURE	8149536
327.	METHOD FOR PROVIDING AND UTILIZING AN ELECTRONIC LAPPING GUIDE IN A MAGNETIC RECORDING TRANSDUCER	8151441
328.	METHOD AND APPARATUS FOR LIFTING OFF PHOTORESIST BENEATH AN OVERLAYER	8163185
329.	METHOD AND SYSTEM FOR INTERROGATING THE THICKNESS OF A CARBON LAYER	8164760
330.	METHOD AND SYSTEM FOR PROVIDING A WRITE POLE IN AN ENERGY ASSISTED MAGNETIC RECORDING DISK DRIVE	8164855
331.	READ HEAD HAVING CONDUCTIVE FILLER IN INSULATED HOLE THROUGH SUBSTRATE	8164858
332.	METHOD AND SYSTEM FOR FABRICATING MAGNETIC TRANSDUCERS WITH IMPROVED PINNING	8164864

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334.	METHOD FOR FABRICATING A MAGNETIC RECORDING TRANSDUCER HAVING SIDE SHIELDS	8166631
335.	METHOD FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING (PMR) TRANSDUCER	8166632
336.	METHOD AND SYSTEM FOR EXPOSING A PHOTORESIST IN A MAGNETIC DEVICE	8169473
337.	TUNABLE POLE TRIM PROCESSES FOR FABRICATING TRAPEZOIDAL PERPENDICULAR MAGNETIC RECORDING (PMR) WRITE POLES	8171618
338.	METHOD AND SYSTEM FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING WRITER	8179636
339.	METHOD FOR PROVIDING A STRUCTURE IN A MAGNETIC TRANSDUCER	8191237
340.	METHOD AND SYSTEM FOR PROVIDING A READ SENSOR HAVING A LOW MAGNETOSTRICTION FREE LAYER	8194365
341.	TMR READ HEAD STRUCTURES WITH DIFFERENTIAL STRIPE HEIGHTS	8194366
342.	METHOD AND SYSTEM FOR PROVIDING A POLE FOR A PERPENDICULAR MAGNETIC RECORDING HEAD USING A MULTI-LAYER HARD MASK	8196285
343.	HEAD WITH AN AIR BEARING SURFACE HAVING A PARTICLE FENCE SEPARATED FROM A LEADING PAD BY A CONTINUOUS MOAT	8199437
344.	HIGH EFFICIENCY GRATING COUPLING FOR LIGHT DELIVERY IN EAMR	8200054
345.	SERVO DESIGN IN DATA STORAGE MEDIA	8203800
346.	ENERGY ASSISTED MAGNETIC RECORDING HEAD HAVING A NEAR FIELD TRANSDUCER WITH REDUCED THERMAL PROTRUSION	8208350
347.	SYSTEM FOR PERFORMING BONDING A FIRST SUBSTRATE TO A SECOND SUBSTRATE	8220140
348.	PRECISE METROLOGY WITH ADAPTIVE MILLING	8222599
349.	METHOD FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING (PMR) POLE	8225488
350.	METHOD AND SYSTEM FOR FABRICATING MAGNETIC TRANSDUCERS WITH IMPROVED PINNING	8227023
351.	METHOD AND SYSTEM FOR PROVIDING A MAGNETIC RECORDING TRANSDUCER HAVING A HYBRID MOMENT POLE	8228633
352.	METHOD AND SYSTEM FOR PROVIDING A MAGNETIC RECORDING TRANSDUCER HAVING SIDE SHIELDS	8231796
353.	METHOD AND SYSTEM FOR PROVIDING A MAGNETIC RECORDING TRANSDUCER USING A LINE HARD MASK	8233248

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355.	METHOD AND SYSTEM FOR PROVIDING AN ENERGY ASSISTED MAGNETIC RECORDING DISK DRIVE HAVING IMPROVED HEAT DISSIPATION	8248896
356.	STRAIGHT TOP MAIN POLE FOR PMR BEVEL WRITER	8254060
357.	UV ADHESIVE VISCOSITY ADJUSTMENT APPARATUS AND METHOD	8256272
358.	DOUBLE RIE DAMASCENE PROCESS FOR NOSE LENGTH CONTROL	8257597
359.	METHOD AND SYSTEM FOR PROVIDING A MAGNETIC HEAD USING A COMPOSITE MAGNETIC MATERIAL IN THE RECORDING TRANSDUCER	8259410
360.	INTEGRATION OF A VERTICAL CAVITY SURFACE EMITTING LASER (VCSEL) ON AN ENERGY-ASSISTED MAGNETIC RECORDING (EAMR) HEAD	8259539
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362.	METHOD AND SYSTEM FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING POLE USING MULTIPLE CHEMICAL MECHANICAL PLANARIZATIONS	8262919
363.	HEAD GIMBAL ASSEMBLY HAVING A RADIAL ROTARY PIEZOELECTRIC MICROACTUATOR BETWEEN A READ HEAD AND A FLEXURE TONGUE	8264797
364.	MAGNETIC RECORDING HEAD	8264798
365.	METHOD AND SYSTEM FOR PROVIDING AN IMPROVED HARD BIAS STRUCTURE	8270126
366.	METHOD FOR FABRICATING A MAGNETIC RECORDING TRANSDUCER	8276258
367.	METHOD AND SYSTEM FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING POLE HAVING A LEADING EDGE BEVEL	8277669
368.	METHOD AND SYSTEM FOR COUPLING A LASER WITH A SLIDER IN AN ENERGY ASSISTED MAGNETIC RECORDING DISK DRIVE	8279719
369.	PERPENDICULAR MAGNETIC RECORDING HEAD	8284517
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371.	METHOD AND SYSTEM FOR PULSING EAMR DISK DRIVES	8289821
372.	METHOD AND SYSTEM FOR CALIBRATING AN ELECTRONIC LAPPING GUIDE FOR A BEVELED POLE IN A MAGNETIC RECORDING TRANSDUCER	8291743
373.	METHODS FOR MODELING DEVICES IN A WAFER	8307539
374.	METHOD FOR PROVIDING AN ENERGY ASSISTED MAGNETIC RECORDING (EAMR) TRANSDUCER	8307540

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375.	MASK FOR INCREASED UNIFORMITY IN ION BEAM DEPOSITION	8308921
376.	PERPENDICULAR MAGNETIC RECORDING HEAD	8310785
377.	METHOD AND SYSTEM FOR PROVIDING SEPARATE WRITE AND OPTICAL MODULES IN AN ENERGY ASSISTED MAGNETIC RECORDING DISK DRIVE	8310901
378.	METHOD AND SYSTEM FOR PROVIDING AN IMPROVED MAGNETORESISTIVE STRUCTURE UTILIZING AN OXIDATION BUFFER LAYER	8315019
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380.	METHOD AND SYSTEM FOR PROVIDING A MAGNETIC RECORDING TRANSDUCER INCLUDING AN ASSIST POLE HAVING SURFACES ANGLED WITH RESPECT TO THE ABS	8320076
381.	METHOD AND SYSTEM FOR PROVIDING A HIGH MOMENT FILM	8320077
382.	TRAILING EDGE OPTIMIZED NEAR FIELD TRANSDUCER	8320219
383.	METHOD AND SYSTEM FOR PROVIDING AN ENERGY ASSISTED MAGNETIC RECORDING DISK DRIVE HAVING A NON-CONFORMAL HEAT SPREADER	8320220
384.	NON-LINEAR OPTICAL GRATING	8320722
385.	METHOD FOR PROVIDING AN ENERGY ASSISTED MAGNETIC RECORDING HEAD IN A WAFER PACKAGING CONFIGURATION	8322022
386.	METHOD FOR PROVIDING A WRAP-AROUND SHIELD FOR A MAGNETIC RECORDING TRANSDUCER	8322023
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388.	METHOD FOR MANUFACTURING A PERPENDICULAR MAGNETIC RECORDING TRANSDUCER	8333008
389.	METHOD AND SYSTEM FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING HEAD	8334093
390.	METHOD OF FABRICATING A TUNNELING MAGNETORESISTIVE (TMR) READER	8336194
391.	METHOD FOR PROVIDING A MAGNETIC RECORDING TRANSDUCER HAVING A HYBRID MOMENT POLE	8339738
392.	SLIDER WITH LEADING EDGE BLEND AND CONFORMAL STEP FEATURES	8339742
393.	METHOD AND SYSTEM FOR PROVIDING A PERPENDICULAR MAGNETIC RECORDING TRANSDUCER USING A SPLIT SEED LAYER	8341826
394.	METHOD AND SYSTEM FOR PROVIDING AN IMPROVED HARD BIAS STRUCTURE	8343319
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397.	METHOD AND SYSTEM FOR PROVIDING A SUSPENSION HEAD BOND PAD DESIGN	8345519
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400.	METHOD FOR LIFTING OFF PHOTORESIST BENEATH AN OVERLAYER	8357244
401.	MAGNETIC WRITER HAVING A SPLIT YOKE	8373945
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403.	METHOD FOR PROVIDING AN ELECTRONIC LAPPING GUIDE CORRESPONDING TO A NEAR-FIELD TRANSDUCER OF AN ENERGY ASSISTED MAGNETIC RECORDING TRANSDUCER	8375565
404.	METHOD FOR PROVIDING A MAGNETIC RECORDING TRANSDUCER	8381391
405.	METHOD AND SYSTEM FOR PROVIDING A MAGNETIC RECORDING TRANSDUCER HAVING A PLANARIZED NEAR-FIELD TRANSDUCER AND A SLOPED POLE	8385158
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415.	METHOD AND SYSTEM FOR REMOVING AN ANTIFERROMAGNETIC SEED STRUCTURE	8419953
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419.	DOUBLE OPTICAL GRATING	8422841
420.	METHOD OF MANUFACTURING A POLE FOR A MAGNETIC RECORDING HEAD	8424192
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422.	ENERGY ASSISTED MAGNETIC RECORDING HEAD HAVING LASER INTEGRATED MOUNTED TO SLIDER	8441896
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776.	METHOD AND SYSTEM FOR PROVIDING AN NFT USING A LIFT-OFF PROCESS	14/578,227
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807.	MAGNETIC READER HAVING A NONMAGNETIC INSERTION LAYER FOR THE PINNING LAYER	14/752,659
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815.	FREE LAYER MAGNETIC READER THAT MAY HAVE A REDUCED SHIELD-TO-SHIELD SPACING	14/862,895
816.	DIFFERENTIAL DUAL FREE LAYER MAGNETIC READER	14/863,309
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823.	WAVEGUIDE WITH REFLECTIVE GRATING FOR LOCALIZED ENERGY INTENSITY	14/886,870
824.	METHOD TO MAKE INTERFEROMETRIC TAPER WAVEGUIDE FOR HAMR LIGHT DELIVERY	14/887,035
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## **Execution Version**

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826.	MAGNETIC HEAD HAVING A READER OVERCOAT WITH DLC AND A RECESSED WRITER OVERCOAT WITHOUT DLC	14/934,453
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828.	SYSTEMS AND METHODS FOR USING WHITE LIGHT INTERFEROMETRY TO MEASURE UNDERCUT OF A BI-LAYER STRUCTURE	14/937,971
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840.	MAGNETIC SHIELD FOR MAGNETIC RECORDING HEAD	14/981,830
841.	SPIN TRANSFER TORQUE TUNNELING MAGNETORESISTIVE DEVICE HAVING A LAMINATED FREE LAYER WITH PERPENDICULAR MAGNETIC ANISOTROPY	14/993,127
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843.	METHOD AND SYSTEM FOR IMPROVING FIELD STITCHING ERROR OF PHOTOLITHOGRAPHY PATTERNED WAFER BY OPTIMIZING SCAN SPEED	62/152,753

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