PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7034576

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	GRANT OF SECURITY INTEREST IN PATENT RIGHTS

CONVEYING PARTY DATA

Name	Execution Date
MICROCHIP TECHNOLOGY INCORPORATED	11/17/2021
SILICON STORAGE TECHNOLOGY, INC.	11/17/2021
ATMEL CORPORATION	11/17/2021
MICROSEMI CORPORATION	11/17/2021
MICROSEMI STORAGE SOLUTIONS, INC.	11/17/2021

RECEIVING PARTY DATA

Name:	JPMORGAN CHASE BANK, N.A., AS ADMINISTRATIVE AGENT
Street Address:	10 S DEARBORN ST.
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60603

PROPERTY NUMBERS Total: 330

Property Type	Number
Patent Number:	10684733
Patent Number:	10698534
Patent Number:	10705651
Patent Number:	10713188
Patent Number:	10725950
Patent Number:	10768647
Patent Number:	10768745
Patent Number:	10776294
Patent Number:	10783279
Patent Number:	10809843
Patent Number:	10809284
Patent Number:	10692581
Patent Number:	10698554
Patent Number:	10700077
Patent Number:	10700171
Patent Number:	10713348

Property Type	Number
Patent Number:	10725939
Patent Number:	10725960
Patent Number:	10725961
Patent Number:	10727735
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Patent Number:	10734298
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Patent Number:	10756719
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Patent Number:	10839661
Patent Number:	10839921
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Application Number:	17185709
Application Number:	17199243
Application Number:	17190376
Application Number:	17199383
Application Number:	17219352
Application Number:	17239397

CORRESPONDENCE DATA

Fax Number: (212)455-2502

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 2124553762

Email: ksolomon@stblaw.com

Correspondent Name: ALYSHA SEKHON, ESQ.

Address Line 1: SIMPSON THACHER & BARTLETT LLP

Address Line 2: 425 LEXINGTON AVENUE

Address Line 4: NEW YORK, NEW YORK 10017

ATTORNEY DOCKET NUMBER:	509265/2114
NAME OF SUBMITTER:	ALYSHA SEKHON
SIGNATURE:	/AS/
DATE SIGNED:	11/19/2021

Total Attachments: 25

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GRANT OF SECURITY INTEREST IN
PATENT RIGHTS

This GRANT OF SECURITY INTEREST IN PATENT RIGHTS (the "Agreement"), dated as of November 17, 2021, made by MICROCHIP TECHNOLOGY INCORPORATED, a Delaware corporation, together with the parties listed on the signature pages hereof (each a "Grantor", and collectively the "Grantors"), in favor of JPMorgan Chase Bank, N.A., a national banking association, with an address at 10 S. Dearborn, 7th Floor, Chicago, IL 60603-2300, as Administrative Agent (in such capacity, the "Administrative Agent") for the banks and other financial institutions or entities (the "Lenders") from time to time parties to the Amended and Restated Credit Agreement, dated as of May 29, 2018 (as may be amended, restated, supplemented or otherwise modified from time to time, the "Existing Credit Agreement"), among Microchip Technology Incorporated, a Delaware corporation ("Borrower"), the Lenders and the Administrative Agent.

WHEREAS, pursuant to the Existing Credit Agreement, the Lenders have severally agreed to make extensions of credit to the Borrower subject to the terms and conditions set forth therein; and

WHEREAS, pursuant to the Existing Credit Agreement, the Borrower and certain other Grantors (as defined in the Security Agreement) have executed and delivered an Amended and Restated Pledge and Security Agreement, dated as of May 29, 2018, in favor of the Administrative Agent (together with all amendments, restatements, supplements and modifications, if any, from time to time thereafter made thereto, the "Security Agreement"); and

WHEREAS, pursuant to the Security Agreement, each Grantor granted to the Administrative Agent, for the ratable benefit of the Secured Parties, a security interest in all of such Grantor's right, title, and interest in and to the Collateral, including the Patents; and

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

NOW THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Grantor agrees as follows:

1.   Definitions. Unless otherwise defined herein or the context otherwise requires, terms used in this Agreement, including its preamble and recitals, have the meanings provided or provided by reference in the Existing Credit Agreement and the Security Agreement.

2.   Grant of Security Interest.   Each Grantor hereby grants to the Administrative Agent, for the ratable benefit of the Secured Parties, a security interest in and continuing lien on

all of such Grantor's right, title and interest in and to all Patents (other than Excluded Assets) now owned or anytime hereafter acquired by such Grantor (including, without limitation, those items listed on Schedule A hereto) (collectively, the "Collateral").

3.   Purpose.   This Agreement has been executed and delivered by each Grantor for the purpose of recording the grant of security interest herein with the United States Patent and Trademark Office. The security interest granted hereby has been granted to the Lenders in connection with the Security Agreement and is expressly subject to the terms and conditions thereof. The Security (and all rights and remedies of the Lenders thereunder) shall remain in full force and effect in accordance with its terms.
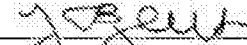
4.   Acknowledgement. Each Grantor does hereby further acknowledge and affirm that the rights and remedies of the Lenders with respect to the security interest in the Collateral granted hereby are more fully set forth in the Existing Credit Agreement and the Security Agreement, the terms and provisions of which (including the remedies provided for therein) are incorporated by reference herein as if fully set forth herein. In the event of any conflict between the terms of this Agreement and the terms of the Security Agreement, the terms of the Security Agreement shall govern.

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

[Remainder of page intentionally blank; signatures on following pages]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of November 17, 2021.

MICROCHIP TECHNOLOGY INCORPORATED, as a Grantor

By:_____
Name: J. Eric Bjornholt
Title: Senior Vice President and Chief Financial Officer

SILICON STORAGE TECHNOLOGY, INC., as a Grantor

By:_____
Name: J. Eric Bjornholt
Title: Chief Financial Officer

ATMEL CORPORATION, as a Grantor

By:_____
Name: J. Eric Bjornholt
Title: Vice President and Chief Financial Officer
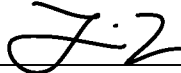
MICROSEMI CORPORATION, as a Grantor

By:_____
Name: J. Eric Bjornholt
Title: Chief Financial Officer

MICROSEMI STORAGE SOLUTIONS, INC., as a Grantor

By:_____
Name: J. Eric Bjornholt
Title: Chief Financial Officer

[Signature Page to Bringdown Patent Security Agreement 2018 Credit]

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent for the Lenders

By: _____

Name: Timothy Lee
Title: Executive Director

[Signature Page to Bringdown Patent Security Agreement]

SCHEDULE A

UNITED STATES PATENTS

Grantor	Patent No.	Issue Date	Title of Patent
Atmel Corporation	10,684,733	2020-06-16	Touch Sensor Compensation Circuit
Atmel Corporation	10,698,534	2020-06-30	Applying a Signal to a Touch Sensor
Atmel Corporation	10,705,651	2020-07-07	Touch Sensor and Associated Control Method for Decreased Capacitive Loads
Atmel Corporation	10,713,188	2020-07-14	Inter-Process Signaling Mechanism
Atmel Corporation	10,725,950	2020-07-28	Peripheral Interface Circuit for Serial Memory
Atmel Corporation	10,768,647	2020-09-08	Regulators with Load-Insensitive Compensations
Atmel Corporation	10,768,745	2020-09-08	Touch Sensor Hand-Configuration Analysis
Atmel Corporation	10,776,294	2020-09-15	System Architecture with Secure Data Exchange
Atmel Corporation	10,783,279	2020-09-22	Low Cost Cryptographic Accelerator
Atmel Corporation	10,809,843	2020-10-20	Touch Sensor Signal Integration
Microchip Technology Incorporated	10,809,284	2020-06-17	Systems and Methods for Improved Root Mean Square (RMS) Measurement
Microchip Technology Incorporated	10,692,581	2020-06-23	Circuits for Bleeding Supply Voltage From a Device in a Power Down State
Microchip Technology Incorporated	10,698,554	2020-06-30	Resistive Components Coupled to Sense Lines of a Touch Sensor, and Related Systems and Methods
Microchip Technology Incorporated	10,700,077	2020-06-30	Memory Cell With A Flat-Topped Floating Gate Structure
Microchip Technology Incorporated	10,700,171	2020-06-30	Non-Volatile Flash Memory Cell
Microchip Technology Incorporated	10,713,348	2020-07-14	System, Method and Apparatus for Touch Panel Security
Microchip Technology Incorporated	10,725,939	2020-07-28	Host-Detecting USB Hub
Microchip Technology Incorporated	10,725,960	2020-07-28	Devices and Methods for Transmission of Events with a Uniform Latency on Serial Communication Links

Microchip Technology Incorporated	10,725,961	2020-07-28	Devices and Methods for Transmission of Events with a Uniform Latency on Serial Communication Links
Microchip Technology Incorporated	10,727,735	2020-07-28	Digital Control of Interleaved Boundary Mode PFC for Reduced Crossover Distortion
Microchip Technology Incorporated	10,727,794	2020-07-28	Power-on-Reset and Phase Comparator for Chopper Amplifiers
Microchip Technology Incorporated	10,734,298	2020-08-04	Metal-Cage Layout Technique Lowering the Package Stress of R & C for Precise Relaxation (RC) Oscillator Design
Microchip Technology Incorporated	10,734,902	2020-08-04	Control of Four-Switch, Single Inductor, Non-Inverting Buck-Boost Converters
Microchip Technology Incorporated	10,735,004	2020-08-04	LUT-Based Focused Ion Beam Friendly Fill-Cell Design
Microchip Technology Incorporated	10,741,507	2020-08-11	Grounding Techniques for Backside-Biased Semiconductor Dice and Related Devices, Systems and Methods
Microchip Technology Incorporated	10,747,404	2020-08-18	Touchscreen Including Tactile Feedback Structures And Corresponding Virtual User Interface Elements
Microchip Technology Incorporated	10,747,611	2020-08-18	Safety Enhancement for Memory Controllers
Microchip Technology Incorporated	10,749,994	2020-08-18	Network Traffic Controller (NTC)
Microchip Technology Incorporated	10,753,964	2020-08-25	Improved Current Sensing For Integrated Circuit Devices
Microchip Technology Incorporated	10,756,627	2020-08-25	High Efficiency, Small Voltage Ripple Buck with Adaptive TON Calculation
Microchip Technology Incorporated	10,756,630	2020-08-25	Line Discharge Circuit with Low Power Components
Microchip Technology Incorporated	10,756,719	2020-08-25	Analog Switch for Transmitting High Voltage Signals Without Utilizing High Voltage Power Supplies
Microchip Technology Incorporated	10,756,751	2020-08-25	Programmable Receivers Including a Delta-Sigma Modulator
Microchip Technology Incorporated	10,761,552	2020-09-01	Capacitor-Less Low Drop-Out (LDO) Regulator
Microchip Technology Incorporated	10,763,130	2020-09-01	Systems And Methods For Improved Delamination Characteristics In A Semiconductor Package

Microchip Technology Incorporated	10,763,324	2020-09-01	Systems and Methods for Forming a Thin Film Resistor Integrated in an Integrated Circuit Device
Microchip Technology Incorporated	10,763,747	2020-09-01	Controlled Adaptive Power Limiter
Microchip Technology Incorporated	10,771,012	2020-09-09	Hybrid RC/Crystal Oscillator
Microchip Technology Incorporated	10,775,820	2020-09-15	On Chip NMOS Capless LDO for High Speed Microcontrollers
Microchip Technology Incorporated	10,776,292	2020-09-15	Apparatus and Method for Protecting Program Memory for Processing Cores in a Multi-Core Integrated Circuit
Microchip Technology Incorporated	10,778,080	2020-09-15	Self-Biased Non-Isolated Low-Power Switching Regulator
Microchip Technology Incorporated	10,795,783	2020-09-16	Fault Tolerant Clock Monitor System
Microchip Technology Incorporated	10,784,766	2020-09-22	Adaptive Slope Compensation for Current Mode Control
Microchip Technology Incorporated	10,784,891	2020-09-22	DELTA-SIGMA LOOP FILTERS WITH INPUT FEEDFORWARD
Microchip Technology Incorporated	10,797,598	2020-10-06	Calibrated Ripple Injection-Based Constant On-Time Buck Converter with Pre-Bias Startup in Continuous Conduction Mode
Microchip Technology Incorporated	10,797,686	2020-10-06	Phase Predictor and Associated Method of Use
Microchip Technology Incorporated	10,797,816	2020-10-06	Method for Providing Path Signal Overhead in the 64B/66B Character Stream of an ITU-T Metro Transport Network
Microchip Technology Incorporated	10,802,866	2020-10-13	Central Processing Unit with DSP Engine and Enhanced Context Switch Capabilities
Microchip Technology Incorporated	10,805,117	2020-10-13	Improved Channel Estimation in OFDM Communication Systems
Microchip Technology Incorporated	10,818,748	2020-10-27	Thin-Film Resistor (TFR) Formed Under a Metal Layer and Method of Fabrication
Microchip Technology Incorporated	10,819,318	2020-10-27	Single Event Upset Immune Flip-Flop Utilizing a Small-Area Highly Resistive Element
Microchip Technology Incorporated	10,839,661	2020-11-17	AUXILIARY DETECTOR BASE FOR PROVIDING ADDITIONAL FUNCTIONALITY TO A SMOKE DETECTOR OR OTHER DETECTOR

Microchip Technology Incorporated	10,839,921	2020-11-17	Circuits for Bleeding Supply Voltage From a Device in a Power Down State
Microchip Technology Incorporated	10,847,225	2020-11-24	Split-Gate Flash Memory Cell with Improved Read Performance
Microchip Technology Incorporated	10,852,329	2020-12-01	High Precision Current Sensing Using Sense Amplifier with Digital AZ Offset Compensation
Microchip Technology Incorporated	10,860,408	2020-12-08	Integrity Monitor Peripheral for Microcontroller and Processor Input/Output Pins
Microchip Technology Incorporated	10,862,294	2020-12-08	Under-Voltage and Over-Voltage Protection Using a Single Comparator
Microchip Technology Incorporated	10,866,697	2020-12-15	Touch-Sensitive User-Interface Including Configurable Virtual Widgets
Microchip Technology Incorporated	10,868,765	2020-12-15	Shaping Traffic on PLCA-Enabled 10SPE Networks
Microchip Technology Incorporated	10,872,043	2020-12-22	Systems and Methods for Checking Integrity of Code or Data in a Mixed Security System While Preserving Confidentiality
Microchip Technology Incorporated	10,873,330	2020-12-22	Electrode Design for Electric Field Measurement System
Microchip Technology Incorporated	10,861,550	2020-12-08	Flash memory cell adapted for low voltage and/or non-volatile performance
Silicon Storage Technology, Inc. and The Regents of the University of California	10388389	2019-08-20	Flash memory array with individual memory cell read, program and erase
Silicon Storage Technology, Inc.	10,650,893	2020-05-12	Adjustable Current Sink to Draw Compensation Current from High Voltage Generation Circuitry During Programming Operation of Analog Neural Memory in Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	10,692,548	2020-06-23	Address Fault Detection in a Flash Memory System
Silicon Storage Technology, Inc.	10,699,787	2020-06-30	System and Method for Minimizing Floating Gate to Floating Gate Coupling Effects During Programming in Flash Memory
Silicon Storage Technology, Inc.	10,699,779	2020-06-30	Neural Network Classifier Using Array Of Two-Gate Non-volatile Memory Cells
Silicon Storage Technology, Inc.	10,714,489	2020-07-14	Method of Programming an Split-Gate Flash Memory Cell with Erase Gate

Silicon Storage Technology, Inc.	10,714,634	2020-07-14	Non-Volatile Split Gate Memory Cells with Integrated High K Metal Control Gates and Method of Making Same
Silicon Storage Technology, Inc.	10,720,217	2020-07-21	Memory Device And Method For Varying Program State Separation Based Upon Frequency Of Use
Silicon Storage Technology, Inc.	10,727,240	2020-07-28	Split Gate Non-Volatile Memory Cells with Three-Dimensional FINFET Structure, and Method of Making Same
Silicon Storage Technology, Inc.	10,741,265	2020-08-11	Flash Memory Cell And Associated Decoders
Silicon Storage Technology, Inc.	10,741,568	2020-08-11	Precision Tuning For the Programming Of Analog Neural Memory In A Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	10,748,630	2020-08-18	High Precision And Highly Efficient Tuning Mechanisms And Algorithms For Analog Neuromorphic Memory In Artificial Neural Networks
Silicon Storage Technology, Inc.	10,755,779	2020-08-25	Architectures and Layouts for an Array of Resistive Random Access Memory Cells and Read and Write Methods Thereof
Silicon Storage Technology, Inc.	10,755,783	2020-08-25	Temperature and Leakage Compensation for Memory Cells in an Analog Neural Memory System Used in a Deep Learning Neural Network
Silicon Storage Technology, Inc.	10,790,022	2020-09-29	Adaptive High Voltage Circuitry and Methods for Programming Operations in an Analog Neural Memory Array in a Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	10,790,292	2020-09-29	Method of Making Embedded Memory Device with Silicon-on-Insulator Substrate
Silicon Storage Technology, Inc.	10,797,142	2020-10-06	FINFET-Based Split Gate Non-volatile Flash Memory With Extended Source Line FINFET, and Method Of Fabrication
Silicon Storage Technology, Inc.	10,803,943	2020-10-13	Neural Network Classifier Using Array Of Four-Gate Non-volatile Memory Cells
Silicon Storage Technology, Inc.	10,804,902	2020-10-13	Improved Level Shifter for Integrated Circuit

Silicon Storage Technology, Inc.	10,818,680	2020-10-27	Split Gate Non-Volatile Memory Cells and Logic Devices with FinFET Structure, and Method of Making Same
Silicon Storage Technology, Inc.	10,833,178	2020-11-10	Method of Making Split Gate Non-Volatile Flash Memory Cell
Silicon Storage Technology, Inc.	10,833,179	2020-11-10	Method of Making Split Gate Non-Volatile Flash Memory Cell
Silicon Storage Technology, Inc.	10,838,652	2020-11-17	Programming of Memory Cell Having Gate Capacitively Coupled to Floating Gate
Silicon Storage Technology, Inc.	10,839,907	2020-11-17	Dynamic Modification of Programming Duration Based on Number of Cells to Be Programmed in Analog Neural Memory Array in Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	10,847,227	2020-11-24	Improved Charge Pump for Use in Non-Volatile Flash Memory Devices
Silicon Storage Technology, Inc.	10,860,918	2020-12-08	Analog Neural Memory System for Deep Learning Neural Network Comprising Multiple Vector-By-Matrix Multiplication Arrays and Shared Components
Silicon Storage Technology, Inc.	10,861,568	2020-12-08	Method and Apparatus for Data Refresh for Analog Non-Volatile Memory in Deep Learning Neural Network
MicroSemi Corporation	10,760,928	2020-09-01	Planar Linear Inductive Position Sensor Having Edge Effect Compensation
MicroSemi Corporation	10,761,549	2020-09-01	VOLTAGE SENSING MECHANISM TO MINIMIZE SHORT-TO-GROUND CURRENT FOR LOW DROP-OUT AND BYPASS MODE REGULATORS
MicroSemi Corporation	10,811,494	2020-10-20	METHOD AND ASSEMBLY FOR MITIGATING SHORT CHANNEL EFFECTS IN SILICON CARBIDE MOSFET DEVICES
MicroSemi Corporation	10,819,101	2020-10-27	OVER-CURRENT PROTECTION APPARATUS AND METHOD

MicroSemi Corporation	10,837,847	2020-11-17	SENSOR SYSTEM PATENT
Microsemi Storage Solutions, Inc.	10,700,713	2020-06-30	SYSTEM AND METHOD FOR ERROR CORRECTION IN DATA COMMUNICATIONS
Microsemi Storage Solutions, Inc.	10,749,470	2020-08-18	METHOD AND APPARATUS FOR MULTIMODE WIDEBAND OSCILLATOR
Atmel Corporation	RE41,843	2010-10-19	Method of Detecting a Redirection or Relaying of a Contactless Data Transmission Using at least Two Sequentially Driven Transmitting Antennas
Atmel Corporation	RE44,551	2013-10-22	Universal Tuner for Mobile TV
Microchip Technology Incorporated	11,017,135	2021-05-25	Scan Logic for Circuit Design with Latches and Flops
Microchip Technology Incorporated	11,018,606	2021-05-25	Linear Hall Effect Sensors for Multi-Phase Permanent Magnet Motors with PWM Drive
Microchip Technology Incorporated	11,018,673	2021-05-25	Multi-Modulus Frequency Dividers
MicroSemi Corporation	D,571,244	2008-06-17	Security System Housing
MicroSemi Corporation	D,618,269	2010-06-22	Pedestal Mount for Security Camera (Design)
MicroSemi Corporation	D,634,229	2011-03-15	Security System Housing
MicroSemi Corporation	D,662,221	2012-06-19	Security System Portal
MicroSemi Corporation	D,663,634	2012-07-17	Hand Held Scanner
MicroSemi Corporation	D,678,792	2013-03-26	Mobile Security System Housing
Microchip Technology Incorporated	11,003,606	2021-05-11	DMA-Scatter and Gather Operations for Non-Contiguous Memory
Microchip Technology Incorporated	10,972,249	2021-04-06	System and Method for Data Sampler Drift Compensation

UNITED STATES PATENT APPLICATIONS

Grantor	Application Number	Filed Date	Patent Application Title
Atmel Corporation	16/946,567	2020-06-26	Techniques for Wideband Touch Sensing and Related Systems, Methods and Devices
Atmel Corporation	16/947,326	2020-07-28	Knob On Display Devices and Related Systems, Methods, and Devices
Atmel Corporation	16/947,327	2020-07-28	Base Assemblies for Knob on Display Devices and Related Systems, Methods, and Devices
Atmel Corporation	16/947,937	2020-08-25	System Architecture with Secure Data Exchange
Atmel Corporation	16/948,270	2020-09-10	Techniques for Routing Signals Using Inactive Sensor Regions of Touch Sensors and Related Systems and Devices
Atmel Corporation	16/948,480	2020-09-21	Low Cost Cryptographic Accelerator
Atmel Corporation	16/949,218	2020-10-20	Touch Sensor Signal Integration
Atmel Corporation	16/932,901	2020-11-05	Excitation Voltages for Touch Sensors
Microchip Technology Incorporated	15/940,807	2018-03-29	A Semiconductor Package Having Exposed Redistribution Layer Features and Related Methods of Packaging and Testing
Microchip Technology Incorporated	16/731,534	2019-12-31	Analog-to-Digital Converter Controllers Including Configurable Contexts
Microchip Technology Incorporated	63/028,461	2020-05-21	Method and Apparatus for Phase Current Balancing in a Multi-Phase Voltage Mode Controlled Buck Converter
Microchip Technology Incorporated	63/030,201	2020-05-26	Integrated Circuit Having Lockstep Processors with Auto-Recovery and Method for Auto-Recovery
Microchip Technology Incorporated	62/704,894	2020-06-02	Fault Event Detection at a Chip and Implementing the Same
Microchip Technology Incorporated	62/704,895	2020-06-02	Capacitive Liquid Level Sensor Using True Simultaneous Differential Acquisition in Push Pull Mode
Microchip Technology Incorporated	63/033,216	2020-06-02	System and Method for Enabling Time-Based Scheduling of a PCIe Endpoint Device Between Multiple Host Computing Machines Using a PCIe Switch

Microchip Technology Incorporated	62/704,921	2020-06-03	Synchronization of Edge Elements
Microchip Technology Incorporated	16/946,067	2020-06-04	Timer Circuit with Autonomous Floating of Pins and Related Systems, Methods, and Devices
Microchip Technology Incorporated	63/034,547	2020-06-04	Integrated Circuit (IC) Package with Integrated Inductor Formed from a Triple Stack of Metal Layers
Microchip Technology Incorporated	16/899,902	2020-06-12	Universal Serial Bus Smart Hub
Microchip Technology Incorporated	62/705,194	2020-06-15	Efficient Data Integrity Methods and Systems
Microchip Technology Incorporated	62/705,234	2020-06-17	Circuitry for Autonomously Measuring Analog Signals and Related Systems, Methods, and Devices
Microchip Technology Incorporated	16/946,500	2020-06-24	Selectable Input Buffers of General Purpose Inputs and Microcontrollers Having the Same
Microchip Technology Incorporated	62/705,384	2020-06-24	IO Buffer Input Circuit with Logic Level Recognition and Improved Static Current Immunity
Microchip Technology Incorporated	16/919,177	2020-07-02	A Method and System for Reliable and Secure Memory Erase
Microchip Technology Incorporated	16/919,348	2020-07-02	Host-Detecting USB Hub
Microchip Technology Incorporated	62/705,653	2020-07-09	Time-Synchronized I2S Hardware Controller
Microchip Technology Incorporated	62/705,702	2020-07-10	Oven for Atomic Clocks and Related Methods
Microchip Technology Incorporated	16/927,553	2020-07-13	Angular Position Sensor and Associated Method of Use
Microchip Technology Incorporated	63/052,525	2020-07-16	Method, System and Apparatus for Constant, High Switching Frequency and Very Narrow Duty Ratio PWM Control of DC-DC Converters and Accurate PFM Control at Light Load
Microchip Technology Incorporated	63/052,838	2020-07-16	Method and System For Noise Immunity For Automatically Triggered Impedance and Capacitance Sensors
Microchip Technology Incorporated	16/933,983	2020-07-20	Analog Switch for Transmitting High Voltage Signals Without Utilizing High Voltage Power Supplies
Microchip Technology Incorporated	63/055,228	2020-07-22	Process-Tolerant Averaging-Based Daisy-Chain Routing Technique for Multi-Point Synchronization and Latency-Removal

Microchip Technology Incorporated	63/057,278	2020-07-27	Regression Neural Network for Identifying Threshold Voltages to be Used in Reads of Flash Memory Devices
Microchip Technology Incorporated	62/706,080	2020-07-30	Oven for Atomic Clocks and Related Methods
Microchip Technology Incorporated	63/058,720	2020-07-30	System and Method for Monitoring Analog Front-End (AFE) Circuitry of an Inductive Position Sensor
Microchip Technology Incorporated	62/706,106	2020-07-31	Bias Mode Auto Selection of Current Conveyor, Touch Sensing Systems Including Current Conveyors Biased Using the Same, and Related Systems, Methods and Devices
Microchip Technology Incorporated	62/706,197	2020-08-04	Programmable Signal Detection of a Lockout Circuit, and Related Systems, Methods and Devices
Microchip Technology Incorporated	16/947,530	2020-08-05	Grounding Techniques for Backside-Biased Semiconductor Dice and Related Devices, Systems and Methods
Microchip Technology Incorporated	16/986,447	2020-08-06	Systems and Methods for Provisioning Wi-Fi Devices
Microchip Technology Incorporated	63/062,675	2020-08-07	Method and Apparatus for Envelope Tracking of Amplifier Supply Voltage for Minimizing Power Dissipation
Microchip Technology Incorporated	16/947,688	2020-08-12	PRE-PROCESSING OF DATA USING AUTONOMOUS MEMORY ACCESS AND RELATED SYSTEMS, METHODS, AND DEVICES
Microchip Technology Incorporated	63/064,958	2020-08-13	3D Toothed Bond Pads for Heterogeneous Die Integration in an Integrated Circuit (IC) Structure
Microchip Technology Incorporated	16/947,785	2020-08-17	Voltage Converters with Hysteretic Control
Microchip Technology Incorporated	62/706,464	2020-08-18	Low Processing Power Frequency Shift Keying Demodulation for Wireless Power and Related Systems, Methods, and Devices
Microchip Technology Incorporated	62/706,486	2020-08-19	Autonomous Core Independent Discrete Signal Slew Rate Sensors
Microchip Technology Incorporated	16/998,050	2020-08-20	Daisy Chain Mode Entry Sequence
Microchip Technology Incorporated	16/998,097	2020-08-20	Daisy Chain Streaming Mode

Microchip Technology Incorporated	16/998,170	2020-08-20	Daisy Chain Complex Commands
Microchip Technology Incorporated	63/068,349	2020-08-20	Partitionable Neural Network for Solid State Drive
Microchip Technology Incorporated	16/999,358	2020-08-21	Metal-Insulator-Metal (MIM) Capacitor
Microchip Technology Incorporated	63/070,294	2020-08-26	Three-Dimensional Metal-Insulator-Metal (MIM) Capacitor
Microchip Technology Incorporated	63/070,643	2020-08-26	EMI Reduction in PLCA-Based Networks Through Beacon Temporal Spreading
Microchip Technology Incorporated	16/948,101	2020-09-03	Mutual Authentication Protocol for Systems with Low-Throughput Communication Links, and Devices for Performing the Same
Microchip Technology Incorporated	16/948,135	2020-09-03	Autonomous Transmit Error Detection of Serial Communication Link Receiver-Transmitter and Microcontroller System Peripherals Implementing the Same
Microchip Technology Incorporated	62/706,704	2020-09-03	Measurement of Capacitive Sensors Capacitively Influenced by a High-Impedance Material, and Related Systems, Methods and Devices
Microchip Technology Incorporated	17/013,978	2020-09-08	Pulse-Width Modulation and Arbitration for Contextual and Uniform LED Illumination in USB Applications
Microchip Technology Incorporated	62/706,792	2020-09-10	Aggregation of Data Communication Between Edge Devices and a Controller
Microchip Technology Incorporated	63/076,413	2020-09-10	LCC (Low Cost Controllerless) Graphics Processing
Microchip Technology Incorporated	62/706,815	2020-09-11	Electronics for Disinfecting Systems and Respiratory Masks, and Related Systems and Devices
Microchip Technology Incorporated	17/019,514	2020-09-14	Systems and Methods for Improved Root Mean Square (RMS) Measurement
Microchip Technology Incorporated	17/019,768	2020-09-14	Integrated Circuit (IC) Device Including a Force Mitigation System for Reducing Under-Pad Damage Caused by Wire Bond
Microchip Technology Incorporated	63/079,586	2020-09-17	Systems and Methods for Detecting Forcer Misalignment in a Wafer Prober
Microchip Technology Incorporated	63/081,966	2020-09-23	Method, System and Apparatus for Suppressing Controller Area Network Bus Ringing

Microchip Technology Incorporated	17/030,439	2020-09-24	EtherCAT Controllers
Microchip Technology Incorporated	17/037,919	2020-09-30	Low Cost Power Line Modem
Microchip Technology Incorporated	16/948,906	2020-10-05	Motor-Current Control Process for Permanent-Magnet Synchronous Motors and Related Systems, Methods and Devices
Microchip Technology Incorporated	16/948,908	2020-10-05	Synchronization of Sequence Numbers in a Network
Microchip Technology Incorporated	16/949,003	2020-10-08	Foreign Object Detection in Wireless Charging Systems and Related Systems, Methods, and Devices
Microchip Technology Incorporated	17/065,920	2020-10-08	Near Constant Delay Comparator for Closed-Loop System
Microchip Technology Incorporated	63/198,309	2020-10-09	Magnetically Shielded Devices, Magnetically Shielded Microelectronic Devices Including Devices, Magnetic Shielding Materials, and Related Methods and Systems
Microchip Technology Incorporated	63/198,357	2020-10-13	Low-Complexity Encoder and Related Systems, Methods, and Devices
Microchip Technology Incorporated	63/198,358	2020-10-13	Low-Power Decoder with Improved Error Correction and Related Systems, Methods and Devices
Microchip Technology Incorporated	63/091,333	2020-10-14	Microcontroller with Increasing Protected Storage Area and Erase Protection
Microchip Technology Incorporated	17/071,356	2020-10-15	Thin Film Resistor (TFR) Formed in an Integrated Circuit Device Using Wet Etching of a Dielectric Cap
Microchip Technology Incorporated	17/071,442	2020-10-15	Thin Film Resistor (TFR) Formed in an Integrated Circuit Device Using TFR Cap Layer(s) as an Etch Stop and/or Hardmask
Microchip Technology Incorporated	17/071,584	2020-10-15	Thin Film Resistor (TFR) Formed in an Integrated Circuit Device Using an Oxide Cap Layer as a TFR Etch Hardmask
Microchip Technology Incorporated	16/949,222	2020-10-20	Ovens for Atomic Clocks and Related Methods
Microchip Technology Incorporated	17/074,848	2020-10-20	Integrated Circuit (IC) Package with Integrated Inductor Having Core Magnetic Field (B Field) Extending Parallel to Die Substrate
Microchip Technology Incorporated	17/075,157	2020-10-20	System and Method for Monitoring Analog Front-End (AFE) Circuitry of an Inductive Position Sensor

Microchip Technology Incorporated	17/075,493	2020-10-20	System and Method for Auto-Recovery in Lockstep Processors
Microchip Technology Incorporated	63/198,476	2020-10-21	Privatized and Secured Low Frequency Signaling for Positioning, Navigation and Timing, and One-Way Messaging
Microchip Technology Incorporated	63/105,169	2020-10-23	Modified Metal-Oxide-Metal (MOM) Capacitor for Integrated Circuit Monitoring
Microchip Technology Incorporated	17/086,007	2020-10-30	Obfuscating Cryptographic Parameters Used in Elliptical Curve Cryptography, and Related Systems and Devices
Microchip Technology Incorporated	17/089,891	2020-11-05	Regression Neural Network for Identifying Threshold Voltages to be Used in Reads of Flash Memory Devices
Microchip Technology Incorporated	63/110,239	2020-11-05	Short to Ground Protection and Automatic Recovery
Microchip Technology Incorporated	63/110,307	2020-11-05	Redundant Angular Inductive Sensor and Associated Method of Use
Microchip Technology Incorporated	63/116,044	2020-11-19	Thin Film Resistor (TFR) Formed in Damascene Interconnect
Microchip Technology Incorporated	63/198,871	2020-11-19	Decision Feedback Equalization Taps and Current Integrating Summers and Related Systems, Methods, and Devices
Microchip Technology Incorporated	63/116,265	2020-11-20	Electric Fuse (E-Fuse) Formed in Damascene Interconnect
Microchip Technology Incorporated	63/116,303	2020-11-20	Method and Apparatus for Determining When Actual Wear of Flash Memory Device Differs from Reliability States for the Flash Memory Device
Microchip Technology Incorporated	17/101,498	2020-11-23	Method and Apparatus for Phase Current Balancing in a Multi-Phase Voltage Mode Controlled Buck Converter
Microchip Technology Incorporated	63/198,948	2020-11-24	Short Range Radar Using Channel Impulse Response Information and Related Systems, Methods, and Devices
Microchip Technology Incorporated	63/198,958	2020-11-25	Ultra High-Speed Tap for Decision Feedback Equalizers (DFE) with a Current Integrating Summer
Microchip Technology Incorporated	63/198,962	2020-11-25	A Termination Impedance Isolator for Differential Transmission and Related Systems, Methods and Devices

Microchip Technology Incorporated	17/247,148	2020-12-01	Front-End Circuitry for a Data Receiver and Related Systems, Methods, and Devices
Microchip Technology Incorporated	17/109,315	2020-12-02	A Method and System for Enhanced SPI Communication
Microchip Technology Incorporated	17/111,218	2020-12-03	Machine Learning Based Methods and Apparatus for Integrated Circuit Design Delay Calculation and Verification
Microchip Technology Incorporated	17/111,973	2020-12-04	Backside Interconnect for Integrated Circuit Package Interposer
Silicon Storage Technology, Inc. and The Regents of the University of California	16/746,852	2020-01-18	Programming Methods For Neural Network Using Non-volatile Memory Array
Silicon Storage Technology, Inc.	63/033,953	2020-06-03	Word Line and Control Gate Line Tandem Decoder for Analog Neural Memory in Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	16/910,022	2020-06-23	Method of Forming Split Gate Memory Cells with Thinned Side Edge Tunnel Oxide
Silicon Storage Technology, Inc.	16/915,289	2020-06-29	Method of Improving Read Current Stability in Analog Non-Volatile Memory by Screening Memory Cells
Silicon Storage Technology, Inc.	16/919,697	2020-07-02	Precision Tuning For the Programming Of Analog Neural Memory In A Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	63/048,470	2020-07-06	Adaptive Bias Decoder for Analog Neural Memory Array in Artificial Neural Network With Source Line Pulldown Mechanism
Silicon Storage Technology, Inc.	63/049,775	2020-07-09	Method of Forming Split Gate Memory Cells with Thinner Tunnel Oxide
Silicon Storage Technology, Inc.	16/930,777	2020-07-16	Temperature Compensation for Memory Cells in an Analog Neural Memory System Used in a Deep Learning Neural Network
Silicon Storage Technology, Inc.	16/985,147	2020-08-04	Ultra-Precise Tuning of Analog Neural Memory Cells in a Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	16/986,812	2020-08-06	Analog Neural Memory Array in Artificial Neural Network with Substantially Constant Array Source Impedance with Adaptive Weight Mapping and Distributed Power
Silicon Storage Technology, Inc.	16/987,101	2020-08-06	Analog Neural Memory Array Storing Synapsis Weights in Differential Cell Pairs in Artificial Neural Network

Silicon Storage Technology, Inc.	63/070,051	2020-08-25	Concurrent Write and Verify Operations in an Analog Neural Memory
Silicon Storage Technology, Inc.	17/005,139	2020-08-27	Method of Making Embedded Memory Device with Silicon-on-Insulator Substrate
Silicon Storage Technology, Inc.	17/006,550	2020-08-28	Wear Leveling in EEPROM Emulator Formed of Flash Memory Cells
Silicon Storage Technology, Inc.	17/021,678	2020-09-15	Method Of Forming Pairs Of Three-Gate Non-Volatile Flash Memory Cells Using Two Polysilicon Deposition Steps
Silicon Storage Technology, Inc.	17/024,410	2020-09-17	Precision Tuning of a Page or Word of Non-Volatile Memory Cells and Associated High Voltage Circuits for an Analog Neural Memory Array in an Artificial Neural Network
Silicon Storage Technology, Inc.	17/069,563	2020-10-13	FinFET Split Gate Non-Volatile Memory Cells with Enhanced Floating Gate to Floating Gate Capacitive Coupling
Silicon Storage Technology, Inc.	17/074,103	2020-10-19	Non-Volatile Memory System Using Strap Cells in Source Line Pull Down Circuits
Silicon Storage Technology, Inc.	17/075,691	2020-10-20	Improved Charge Pump for Use in Non-Volatile Flash Memory Devices
Silicon Storage Technology, Inc.	17/082,956	2020-10-28	Analog Neural Memory Array in Artificial Neural Network Comprising Logical Cells and Improved Programming Mechanism
Silicon Storage Technology, Inc.	17/090,481	2020-11-05	Analog Neural Memory Array in Artificial Neural Network With Source Line Pulldown Mechanism
Silicon Storage Technology, Inc.	17/095,331	2020-11-11	Self-Timed Sensing Architecture for a Non-Volatile Memory System
Silicon Storage Technology, Inc.	17/095,661	2020-11-11	Temperature Compensation in an Analog Memory Array By Changing a Threshold Voltage of a Selected Memory Cell in the Array
Silicon Storage Technology, Inc.	17/104,385	2020-11-25	Word Line and Control Gate Line Tandem Decoder for Analog Neural Memory in Deep Learning Artificial Neural Network
Atmel Corporation	17/174,963	2021-02-12	Base Assemblies Having Conductive Pads for Knob on Display Devices and Related Systems, Methods, and Devices
Microchip Technology Incorporated	17/174,392	2021-02-12	Burn-In Board Including Strip Socket with Integrated Heating for High Volume Burn-In of Semiconductor Devices

Microchip Technology Incorporated	17/229,083	2021-04-13	Automatic Threshold Adjustment for USB Power Delivery to Work With Cables Out of Specification
Microchip Technology Incorporated	63/126,137	2020-12-16	Methods and Systems for Determining a Noise-Robust Acquisition Configuration for Operating a Sensor System
Microchip Technology Incorporated	17/193,172	2021-03-05	Low-Latency MACsec Authentication
Microchip Technology Incorporated	63/148,031	2021-02-10	Dual Accumulators for Downsampling and Related Electronic Devices, Sampling Systems, and Methods
Microchip Technology Incorporated	17/117,288	2020-12-10	Integrated Inductor with a Stacked Metal Wire
Microchip Technology Incorporated	17/301,522	2021-04-06	Provisioning Headless Wifi Devices and Related Systems, Methods and Devices
Microchip Technology Incorporated	63/199,058	2020-12-04	Implementing Higher-Layer Processing on Time-Sensitive Data Blocks at a Physical-Layer Interface
Microchip Technology Incorporated	17/145,944	2021-01-11	Method, System and Apparatus for Constant, High Switching Frequency and Narrow Duty Ratio PWM Control of DC-DC Converters and Accurate PFM Control at Light Load
Microchip Technology Incorporated	17/163,645	2021-02-01	Integrated Circuit Bond Pad with Multi-Material Toothed Structure
Microchip Technology Incorporated	63/126,482	2020-12-16	Direct Port to Port Switching for Low Latency Transfers in TSN Networks
Microchip Technology Incorporated	63/123,523	2020-12-10	Cyclone Filter for Biological Contaminants
Microchip Technology Incorporated	63/124,198	2020-12-11	Semiconductor Device Packages Including Multiple Lead Frames and Related Methods
Microchip Technology Incorporated	17/155,431	2021-01-22	Three-Dimensional Metal-Insulator-Metal (MIM) Capacitor
Microchip Technology Incorporated	63/125,966	2020-12-15	Circular Non-Linear Neural Network to Improve Solid State Drive's Quality of Service (QoS)
Microchip Technology Incorporated	17/133,115	2020-12-23	Transparently Attached Flash Memory Security
Microchip Technology Incorporated	63/129,867	2020-12-23	DC-DC Converter with Improved Line Transient Rejection
Microchip Technology Incorporated	17/147,778	2021-01-13	Systems and Methods for Detecting Forcer Misalignment in a Wafer Prober

Microchip Technology Incorporated	63/153,906	2021-02-25	Autonomous State-Less NAND Management for SSDs
Microchip Technology Incorporated	63/132,511	2020-12-31	CAN Transmitter with Fast CANL Loop and Switched Output Cascode
Microchip Technology Incorporated	63/133,008	2020-12-31	Thin Film Resistor (TFR) with Improved Contacts
Microchip Technology Incorporated	63/149,111	2021-02-12	Artificial Intelligence (AI) Based Oscillating Signal-Characteristic Offset Compensation, and Related Methods and Devices
Microchip Technology Incorporated	17/140,064	2021-01-02	ReRAM Memory Cell Having Dual Word Line Control and Method for Erasing a ReRAM Memory Cell
Microchip Technology Incorporated	17/247,837	2020-12-24	Electrical Energy Loss Detection
Microchip Technology Incorporated	17/247,954	2020-12-31	Sensors, Autonomous Sensors and Related Systems, Methods and Devices
Microchip Technology Incorporated	17/164,934	2021-02-02	Method, System and Apparatus for Suppressing Controller Area Network Bus Ringing
Microchip Technology Incorporated	63/162,516	2021-03-18	Method and Apparatus for Performing Convolution Neural Network Operations Using 3x3 Convolution Matrix
Microchip Technology Incorporated	63/200,837	2021-03-31	On Chip Measurement of High Voltage Node with Low Voltage Measurement Circuit and Related Systems, Methods and Devices
Microchip Technology Incorporated	63/159,510	2021-03-11	IC Thermal Protection
Microchip Technology Incorporated	63/199,873	2021-01-29	Lead Frames for Semiconductor Packages with Increased Reliability and Related Semiconductor Device Packages and Methods
Microchip Technology Incorporated	17/160,958	2021-01-28	Heads-Up Display Using Electrochromic Elements
Microchip Technology Incorporated	17/171,697	2021-02-09	Interfacing a Number of Serial Communication Interfaces With a Parallel Communication Interface, and Related Systems, Methods, and Apparatuses
Microchip Technology Incorporated	17/301,094	2021-03-24	Low Connection Count Interface Wake Source Communication According to 10SPE Local and Remote Wake and Related Systems, Methods, and Devices
Microchip Technology Incorporated	17/249,925	2021-03-18	Recognizing an Object Using Capacitive Sensing

Microchip Technology Incorporated	17/301,744	2021-04-13	Amplified Charge Cancellation in Touch Sensor, and Related Systems Methods and Devices
Microchip Technology Incorporated	17/146,875	2021-01-12	Redundant Angular Position Sensor and Associated Method of Use
Microchip Technology Incorporated	17/148,200	2021-01-13	Partitionable Neural Network for Solid State Drives
Microchip Technology Incorporated	17/301,105	2021-03-25	Circuitry for Autonomously Measuring Analog Signals and Related Systems, Methods, and Devices
Microchip Technology Incorporated	17/151,316	2021-01-18	System and Method for Scheduling Sharable PCIE Endpoint Devices
Microchip Technology Incorporated	63/148,060	2021-02-10	Stuck-at Fault Detectors and Trappers and Related Systems, Methods, and Devices
Microchip Technology Incorporated	63/180,634	2021-04-27	Method and Apparatus for Programmable Machine Learning and Inference
Microchip Technology Incorporated	63/180,562	2021-04-27	Method and Apparatus for Gather/Scatter Operations in a Vector Processor
Microchip Technology Incorporated	63/180,601	2021-04-27	System of Multiple Stacks in a Processor Devoid of an Effective Address Generator
Microchip Technology Incorporated	17/306,019	2021-05-03	Metal-Oxide-Metal (MOM) Capacitors for Integrated Circuit Monitoring
Microchip Technology Incorporated	63/200,751	2021-03-25	Sense Coil for Inductive Rotational-Position Sensing, and Related Devices, Systems, and Methods
Microchip Technology Incorporated	63/158,242	2021-03-08	Single-Event-Upset-Resistant Storage Elements Including a Bypass Path, and Related Devices, Systems, and Methods
Microchip Technology Incorporated	17/170,975	2021-02-09	Thin Film Resistor (TFR) with Improved Contacts
Microchip Technology Incorporated	63/172,147	2021-04-08	Multiprotocol USB Adaptive Charging
Microchip Technology Incorporated	63/152,374	2021-02-23	Thin Film Resistor (TFR) Having a TFR Film Providing a Diffusion Barrier
Microchip Technology Incorporated	63/152,907	2021-02-24	Integrated Circuit E-Fuse with E-Fuse Film Providing a Diffusion Barrier
Microchip Technology Incorporated	63/158,238	2021-03-08	Common View Time Transfer for Mass Market GNSS Devices and Related Apparatuses, Systems, and Methods

Microchip Technology Incorporated	17/233,342	2021-04-16	Thin Film Resistor (TFR) With Displacement-Plated TFR Heads
Microchip Technology Incorporated	17/233,367	2021-04-16	Electric Fuse (E-Fuse) With Displacement-Plated E-Fuse Terminals
Microchip Technology Incorporated	63/161,492	2021-03-16	Metal-Insulator-Metal (MIM) Capacitor and Thin-Film Resistor (TFR) Formed Concurrent with Integrated Circuit (IC) Interconnect
Microchip Technology Incorporated	63/162,993	2021-03-18	Automatic Protection Against Runt Pulses
Microchip Technology Incorporated	63/180,615	2021-04-27	System and Method for Low-Latency Double Data Rate (DDR) Chip-Kill Recovery
Microchip Technology Incorporated	17/198,860	2021-03-11	Methods and Systems for Determining a Noise-Robust Acquisition Configuration for Operating a Sensor System
Microchip Technology Incorporated	17/198,911	2021-03-11	DC-DC Converter with Improved Line Transient Rejection
Microchip Technology Incorporated	63/171,058	2021-04-05	Differentiating Between Diesel Fuel and Water Using Capacitive Measurement Thereof
Microchip Technology Incorporated	63/169,571	2021-04-01	Tswitch with Reduced Current Leakage
Microchip Technology Incorporated	17/301,080	2021-03-24	Multi-Bias Mode Current Conveyor, Configuring a Multi-Bias Mode Current Conveyor, Touch Sensing Systems Including a Multi-Bias Mode Current Conveyor and Related Systems, Methods and Devices
Microchip Technology Incorporated	17/213,675	2021-03-26	Method and Apparatus for Determining When Actual Wear of a Flash Memory Device Differs from Reliability States for the Flash Memory Device
Microchip Technology Incorporated	63/177,097	2021-04-20	Method and Apparatus for PWM Control of Multi-Mode Switching Power Supply Using Iterative Average Current Mode Control
Microchip Technology Incorporated	63/179,712	2021-04-26	Process Including Laser and Saw Step Cutting to Form Wettable Flanks for a Surface-Mount Integrated Circuit Package
Microchip Technology Incorporated	63/175,138	2021-04-15	Three-Dimensional Metal-Insulator-Metal (MIM) Capacitor without added mask layers
Microchip Technology Incorporated	63/181,635	2021-04-29	Automatically Trimming a PCB-Based L-C Tank

Microchip Technology Incorporated	63/181,651	2021-04-29	Spread Spectrum for a PCB-Based L-C Tank
Microchip Technology Incorporated	17/233,285	2021-04-16	Thin-Film Resistor (TFR) Having a TFR Element Providing a Diffusion Barrier for Underlying TFR Heads
Microchip Technology Incorporated	17/233,311	2021-04-16	Integrated Circuit E-Fuse Having an E-Fuse Element Providing a Diffusion Barrier for Underlying E-Fuse Terminals
Microchip Technology Incorporated	17/301,864	2021-04-16	Semiconductor Device Packages Including Multiple Lead Frames and Related Methods
Microchip Technology Incorporated	17/234,993	2021-04-20	Method and Apparatus for Reading a Flash Memory Device
Microchip Technology Incorporated	17/242,493	2021-04-28	System and Method for Synchronizing Nodes in a Network Device
Microchip Technology Incorporated	17/244,882	2021-04-29	Systems and Methods to Remove Input Voltage Dependency in a Power Converter
Microchip Technology Incorporated	17/308,270	2021-05-05	Metal-Insulator-Metal (MIM) Capacitor and Thin-Film Resistor (TFR) Formed in an Integrated Circuit Structure
Microchip Technology Incorporated	17/314,535	2021-05-07	Lead Frames for Semiconductor Packages with Increased Reliability and Related Semiconductor Device Packages and Methods
MicroSemi Corporation	17/129,144	2020-12-21	Method for Forming Hermetic Package for a Power Semiconductor
Silicon Storage Technology, Inc.	17/121,555	2020-12-14	Input and Digital Output Mechanisms for Analog Neural Memory In A Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	17/133,395	2020-12-23	Input and Digital Output Mechanisms for Analog Neural Memory In A Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	63/133,270	2021-01-01	Input and Digital Output Mechanisms for Analog Neural Memory in a Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	63/131,624	2020-12-29	Improved Architectures for Storing and Retrieving System Data in a Non-Volatile Memory System
Silicon Storage Technology, Inc.	17/125,459	2020-12-17	Verifying or Reading a Cell in an Analog Neural Memory in a Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	17/129,865	2020-12-21	Method of Making Memory Cells, High Voltage Devices and Logic Devices on a Substrate

Silicon Storage Technology, Inc.	17/140,924	2021-01-04	Adaptive Bias Decoder for Analog Neural Memory Array in Artificial Neural Network
Silicon Storage Technology, Inc.	17/151,944	2021-01-19	Method of Forming a Device with Planar Split Gate Non-Volatile Memory Cells, High Voltage Devices and Finfet Logic Devices
Silicon Storage Technology, Inc.	17/152,441	2021-01-19	Split Gate Non-Volatile Memory Cells, HV and Logic Devices with FinFET Structures, and Method of Making Same
Silicon Storage Technology, Inc.	17/152,696	2021-01-19	Split-Gate, 2-Bit Non-Volatile Memory Cell with Erase Gate Disposed Over Word Line Gate, and Method of Making Same
Silicon Storage Technology, Inc.	17/191,392	2021-03-03	Programming Analog Neural Memory Cells in Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	17/181,656	2021-02-22	Output Circuits for an Analog Neural Memory System for Deep Learning Neural Network
Silicon Storage Technology, Inc.	17/165,934	2021-02-02	Split-Gate Non-Volatile Memory Cells with Erase Gates Disposed Over Word Line Gates, and Method of Making Same
Silicon Storage Technology, Inc.	17/179,057	2021-02-18	Method of Forming Split Gate Memory Cells with Thinner Tunnel Oxide
Silicon Storage Technology, Inc.	17/178,520	2021-02-18	Virtual Ground Non-volatile Memory Array
Silicon Storage Technology, Inc.	17/185,725	2021-02-25	Precise Data Tuning Method and Apparatus for Analog Neural Memory in an Artificial Neural Network
Silicon Storage Technology, Inc.	17/185,709	2021-02-25	Method of Making Memory Cells, High Voltage Devices and Logic Devices on a Substrate with Silicide on Conductive Blocks
Silicon Storage Technology, Inc.	17/199,243	2021-03-11	Set-While-Verify Circuit and Reset-While Verify Circuit for Resistive Random Access Memory Cells
Silicon Storage Technology, Inc.	17/190,376	2021-03-02	Concurrent Write and Verify Operations in an Analog Neural Memory
Silicon Storage Technology, Inc.	17/199,383	2021-03-11	Architectures for Storing and Retrieving System Data in a Non-Volatile Memory System
Silicon Storage Technology, Inc.	17/219,352	2021-03-31	Digital Output Mechanisms for Analog Neural Memory in a Deep Learning Artificial Neural Network
Silicon Storage Technology, Inc.	17/239,397	2021-04-23	Flash Memory Cell And Associated High Voltage Row Decoder