



April 26, 2023

Jeannette Jackson
Division of Trading and Markets
Office of Market Supervision
Securities and Exchange Commission
100 F. Street, N.E.
Washington, D.C. 20549

**RE: MIAX Emerald, LLC (“Emerald”)
Amendment 2023-5 to Form 1 Application**

Dear Ms. Jackson:

Enclosed for official filing pursuant to Rule 6a-2(a) is Amendment 2023-5 to the Form 1 Application of Emerald, which includes the following changes:

Exhibit C – New subsidiary (MIAX Sapphire, LLC)

Please do not hesitate to contact me if you have any questions in connection with this matter.

Sincerely,

Barbara J. Comly

Barbara J. Comly
EVP, General Counsel & Corporate Secretary

Enclosure
cc: Marlene Olsen

Form 1 Page 1 Execution Page	UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 APPLICATION FOR, AND AMENDMENTS TO APPLICATION FOR, REGISTRATION AS A NATIONAL SECURITIES EXCHANGE OR EXEMPTION FROM REGISTRATION PURSUANT TO SECTION 5 OF THE EXCHANGE ACT	Date filed (MM/DD/YY): 04/26/23	OFFICIAL USE ONLY
---------------------------------------	--	---	-------------------------

Warning: Failure to keep this form current and to file accurate supplementary information on a timely basis, or the failure to keep accurate books and records or otherwise comply with the provisions of law applying to the conduct of the applicant would violate the federal securities laws and may result in disciplinary, administrative or criminal action

INTENTIONAL MISSTATEMENTS OR OMISSIONS OF FACTS MAY CONSTITUTE CRIMINAL VIOLATIONS

APPLICATION AMENDMENT

1. State the name of the applicant: MIAX Emerald, LLC
2. Provide the applicant's primary street address (Do not use a P.O. Box): 7 Roszel Road, Suite 1A, Princeton, NJ 08540
3. Provide the applicant's mailing address (if different):
4. Provide the applicant's business telephone and facsimile number:
Telephone: 609-897-7300; Facsimile: 609-987-2210
5. Provide the name, title and telephone number of a contact employee:
Barbara J. Comly, EVP, General Counsel & Corporate Secretary
609-897-7315
6. Provide the name and address of counsel for the applicant:
Barbara J. Comly, EVP, General Counsel & Corporate Secretary
MIAX Emerald, LLC
7 Roszel Road, Suite 1A
Princeton, NJ 08540
7. Provide the date applicant's fiscal year ends: December 31
8. Indicate legal status of applicant: Corporation Sole Proprietorship Partnership
 Limited Liability Company Other (specify):



23007576

If other than a sole proprietor, indicate the date and place where applicant obtained its legal status (e.g. state where incorporated, place where partnership agreement was filed or where applicant entity was formed):

- (a) Date (MM/DD/YY): 01/30/18 (b) State/Country of formation: Delaware
- (c) Statute under which applicant was organized: Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.)

EXECUTION: The applicant consents that service of any civil action brought by, or notice of any proceeding before, the Securities and Exchange Commission in connection with the applicant's activities may be given by registered or certified mail or confirmed telegram to the applicant's contact employee at the main address, or mailing address if different, given in Items 2 and 3. The undersigned, being first duly sworn, deposes and says that he/she has executed this form on behalf of, and with the authority of, said applicant. The undersigned and applicant represent that the information and statements contained herein, including exhibits, schedules, or other documents attached hereto, and other information filed herewith, all of which are made a part hereof, are current, true, and complete.

MIAX EMERALD, LLC

Date: April 26, 2023

By: Barbara J. Comly
Barbara J. Comly
EVP, General Counsel & Corporate Secretary

Subscribed and sworn before me this ____ day of _____, 2023.

Based upon relief from Commission Staff and difficulties arising from COVID-19, MIAX Emerald, LLC is making this filing without a notarization.

Notary Public of the State of New Jersey

This page must always be completed in full with original, manual signature and notarization.
Affix notary stamp or seal where applicable.

EXHIBIT C

Exhibit Request:

For each subsidiary or affiliate of the applicant, and for any entity with whom the applicant has a contractual or other agreement relating to the operation of an electronic trading system to be used to effect transactions on the exchange (“System”), provide the following information:

1. Name and address of organization.
2. Form of organization (e.g., association, corporation, partnership, etc.).
3. Name of state and statute citation under which organized. Date of incorporation in present form.
4. Brief description of nature and extent of affiliation.
5. Brief description of business or functions. Description should include responsibilities with respect to operation of the System and/or execution, reporting, clearance, or settlement of transactions in connection with operation of the System.
6. A copy of the constitution.
7. A copy of the articles of incorporation or association including all amendments.
8. A copy of existing by-laws or corresponding rules or instruments.
9. The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions.
10. An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association.

Response:

A. MIAMI INTERNATIONAL HOLDINGS, INC.

1. *Name:* Miami International Holdings, Inc.
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:* Delaware, Delaware General Corporation Law (8 Del. C. § 1-101, et seq.), on November 14, 2007.
4. *Brief description of nature and extent of affiliation:* MIAX Emerald, LLC is a wholly-owned subsidiary of Miami International Holdings, Inc. (“MIH”).

5. *Brief description of business or functions:* Miami International Holdings, Inc. is a holding company which holds 100% of the equity of Miami International Securities Exchange, LLC, MIAX PEARL, LLC, MIAX Emerald, LLC, MIAX Sapphire, LLC, Miami International Technologies, LLC, MIAX Global, LLC, MIAX Futures, LLC, MIAX Products, LLC, The Bermuda Stock Exchange, Dorman Trading, LLC, M 7 Holdings, LLC, MIH East Holdings, Limited, and M 402 Holdings, LLC, the sole member and owner of 100% of the equity and voting securities of Minneapolis Grain Exchange, LLC. MIAX Futures, LLC is the owner of 51% of the outstanding membership interests in ConvexityShares, LLC. Miami International Holdings, Inc. is the entity through which the ultimate owners of the applicant indirectly hold their ownership interest in the applicant and its affiliates.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Amended and Restated Certificate of Incorporation dated October 16, 2015 is attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* The Amended and Restated By-Laws dated June 27, 2015 are attached.
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of Miami International Holdings, Inc.

The following persons are the officers of Miami International Holdings, Inc.:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Lance Emmons	Executive Vice President and Chief Financial Officer
Edward Deitzel	Executive Vice President and Chief Regulatory Officer
Shelly Brown	Executive Vice President – Strategic Planning and Business Development
Mark G. Bagan	Executive Vice President – US Futures Strategy
John Smollen	Executive Vice President – Head of Exchange Traded Products and Strategic Relations
Randy Foster	Senior Vice President – Business Systems Development
Harish Jayabalan	Executive Vice President – Chief Risk Officer and Chief Information Security Officer
Matthew Rotella	Senior Vice President – Chief Technology Officer
Joseph W. Ferraro III	Senior Vice President – Deputy General Counsel
Deborah Carroll	Senior Vice President – Associate General Counsel and Assistant Corporate Secretary
Joseph Bracco	Senior Vice President – Head of Sales

Name	Title
Rodney Hester	Senior Vice President – Systems Infrastructure
Amy Neiley-Avayou	Senior Vice President – Trading Operations and Listings
Paul Anders (Andy) Nybo	Senior Vice President – Chief Communications Officer
Charles Blades	Vice President – Controller
Kateryna Brezitska	Vice President – Equities Planning and Development
Jonathan Dowd	Vice President – Business Strategy
Mitchell Garfinkel	Vice President – Finance
Lindsay R. Hopkins	Vice President – Senior Counsel
Daniel Hsu	Vice President – Exchange Pricing & Business Analysis
Thomas Jarck	Vice President – Proprietary Product Development
Joseph P. Kamnik	Vice President – Senior Counsel
Gamini Karunaratne	Vice President – Network Engineering & Data Center Operations
Kaitlin Meyer	Vice President – Marketing and Sales
James O’Neil	Vice President and Director of Physical Security and Safety
Gerard (Chaz) Palmeri	Vice President – Systems Operations
Vinay Rao	Vice President – Trading Systems Development
Siddharth Sahoo	Vice President – Trading Systems Development
Christopher Solgan	Vice President – Senior Counsel
Peter D. Sparby	Vice President – Counsel
Tia Toms	Vice President – Administration
Gregory Ziegler	Vice President – Senior Counsel
Katherine Comly	Assistant Vice President, Associate Counsel and Director of ESG
Matt Leisen	Assistant Vice President – Counsel
Michael Slade	Assistant Vice President – Associate Counsel

The officers of Miami International Holdings, Inc. serve until their successors are appointed in accordance with the By-Laws of Miami International Holdings, Inc. Officers of Miami International Holdings, Inc. serve at the direction of the Board of Directors.

Directors of Miami International Holdings, Inc.

The following persons are the directors of Miami International Holdings, Inc.:

Name
Thomas P. Gallagher (Chairman)
Talal Jassim Al-Bahar
Abdulwahab Ahmad Al-Nakib
Michael P. Ameen

Albert M. Barro, Jr.
John Beckelman
Barry J. Belmont
Ricardo Blach
Christopher Brady
Khaled Magdy El-Marsafy
William W. Hopkins
Thomas J. Kelly, Jr.
Paul Kotos
Mark I. Massad
Jack G. Mondel
William J. O'Brien III
Robert D. Prunetti
Mark F. Raymond
Douglas M. Schafer, Jr.
Paul V. Stahlin
J. Gray Teekell
Jassem Hassan Zainal

Directors of Miami International Holdings, Inc. serve one year terms.

Audit Committee of Miami International Holdings, Inc.

The following persons are members of the Audit Committee of Miami International Holdings, Inc.:

Name
Paul V. Stahlin (Chairman)
Michael P. Ameen
Khaled Magdy El-Marsafy
Robert D. Prunetti

Compensation Committee of Miami International Holdings, Inc.

The following persons are members of the Compensation Committee of Miami International Holdings, Inc.:

Name
Talal Jassim Al-Bahar (Chairman)
Christopher D. Brady
Thomas J. Kelly
Mark F. Raymond
J. Gray Teekell

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

B. MIAMI INTERNATIONAL SECURITIES EXCHANGE, LLC

1. *Name:* Miami International Securities Exchange, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on September 10, 2007.
4. *Brief description of nature and extent of affiliation:* Miami International Securities Exchange, LLC is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.
5. *Brief description of business or functions:* Miami International Securities Exchange, LLC ("MIAX") is registered as a National Securities Exchange under Section 6 of the Securities Exchange Act of 1934, as amended. MIAX operates a fully electronic options trading platform.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Amended and Restated Certificate of Formation dated November 12, 2020 is attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* The Third Amended and Restated Limited Liability Company Agreement dated November 12, 2020, and Amended and Restated By-Laws dated November 12, 2020 are attached.
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of Miami International Securities Exchange, LLC

The following persons are the officers of Miami International Securities Exchange, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Lance Emmons	Executive Vice President and Chief Financial Officer

Name	Title
Edward Deitzel	Executive Vice President, Chief Regulatory Officer and Chief Compliance Officer
Shelly Brown	Executive Vice President – Strategic Planning and Business Development
Harish Jayabalan	Executive Vice President – Chief Risk Officer and Chief Information Security Officer
John Smollen	Executive Vice President – Head of Exchange Traded Products and Strategic Relations
Randy Foster	Senior Vice President – Business Systems Development
Matthew Rotella	Senior Vice President – Chief Technology Officer
Joseph W. Ferraro III	Senior Vice President – Deputy General Counsel
Deborah Carroll	Senior Vice President – Associate General Counsel and Assistant Corporate Secretary
Joseph S. Bracco	Senior Vice President – Head of Sales
Rodney Hester	Senior Vice President – Systems Infrastructure
Amy Neiley-Avayou	Senior Vice President – Trading Operations and Listings
Paul Anders (Andy) Nybo	Senior Vice President – Chief Communications Officer
Charles Blades	Vice President – Controller
Kateryna Brezitska	Vice President – Equities Planning and Development
Jonathan S. Dowd	Vice President – Business Strategy
Laurence Gardner	Vice President – Regulatory Operations
Mitchell Garfinkel	Vice President – Finance
Daniel Hsu	Vice President – Exchange Pricing & Business Analysis
Thomas Jarck	Vice President – Proprietary Product Development
Joseph P. Kamnik	Vice President – Senior Counsel
Gamini Karunaratne	Vice President – Network Engineering & Data Center Operations
Kaitlin Meyer	Vice President – Marketing and Sales
Ronald Miller	Vice President – Compliance
Lawrence O’Leary	Vice President – Regulatory Oversight
James O’Neil	Vice President and Director of Physical Security and Safety
Gerard (Chaz) Palmeri	Vice President – Systems Operations
Vinay Rao	Vice President – Trading Systems Development
Siddharth Sahoo	Vice President – Trading Systems Development
Christopher Solgan	Vice President – Senior Counsel
Christopher Swisher	Vice President – Market Surveillance
Tia Toms	Vice President – Administration
Gregory Ziegler	Vice President – Senior Counsel

Name	Title
Katherine Comly	Assistant Vice President, Associate Counsel and Director of ESG
Michael Slade	Assistant Vice President – Associate Counsel

The officers of Miami International Securities Exchange, LLC serve until their successors are appointed in accordance with the By-Laws of Miami International Securities Exchange, LLC. Officers of Miami International Securities Exchange, LLC will serve at the direction of the Board of Directors.

Directors of Miami International Securities Exchange, LLC

The following persons are the directors and Board observers of Miami International Securities Exchange, LLC:

Directors
Thomas P. Gallagher
Michael P. Ameen
Lindsay L. Burbage
Robert Castrignano
Marianne Deane
John DiBacco, Jr.
David Dooman
Kurt M. Eckert
Leslie Florio
Lawrence E. Jaffe
Paul Jiganti
John A. Kinahan
William V. Looney, Jr.
John E. McCormac
Robert D. Prunetti
Joseph Sellitto
Cynthia Schwarzkopf
J. Gray Teekell
Observers
Lawrence Tanzman

Committees of Miami International Securities Exchange, LLC

The standing committees of the Board and the persons appointed to sit on the standing committees are as follows:

Audit Committee
Robert D. Prunetti (Chair)
Michael P. Ameen
John E. McCormac

Compensation Committee
J. Gray Teekell (Chair)
Robert D. Prunetti
Cynthia Schwarzkopf

Regulatory Oversight Committee
Lindsay L. Burbage (Chair)
Leslie Florio
Lawrence E. Jaffe

Appeals Committee
Lawrence Jaffe (Chair)
Robert Castrignano
Kurt M. Eckert

Technology Committee
Leslie Florio (Chair)
Robert Castrignano
Marianne Deane
David Dooman
Kurt M. Eckert
John A. Kinahan
John E. McCormac
Cynthia Schwarzkopf
J. Gray Teekell

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

C. MIAX PEARL, LLC

1. *Name:* MIAX PEARL, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on February 11, 2016.
4. *Brief description of nature and extent of affiliation:* MIAX PEARL, LLC ("MIAX PEARL") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.
5. *Brief description of business or functions:* MIAX PEARL is registered as a National Securities Exchange under Section 6 of the Securities Exchange Act of 1934, as amended. MIAX PEARL operates fully electronic options and equities trading platforms.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Restated Certificate of Formation dated November 12, 2020 is attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* The Second Amended and Restated Limited Liability Company Agreement dated November 12, 2020 and Amended and Restated By-Laws dated February 11, 2021 are attached.
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of MIAX PEARL, LLC

The following persons are the officers of MIAX PEARL, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Lance Emmons	Executive Vice President and Chief Financial Officer
Edward Deitzel	Executive Vice President, Chief Regulatory Officer and Chief Compliance Officer
Shelly Brown	Executive Vice President – Strategic Planning and Business Development
Harish Jayabalan	Executive Vice President – Chief Risk Officer and Chief Information Security Officer

Name	Title
John Smollen	Executive Vice President – Head of Exchange Traded Products and Strategic Relations
Randy Foster	Senior Vice President – Business Systems Development
Matthew Rotella	Senior Vice President – Chief Technology Officer
Joseph W. Ferraro III	Senior Vice President – Deputy General Counsel
Deborah Carroll	Senior Vice President – Associate General Counsel and Assistant Corporate Secretary
Joseph S. Bracco	Senior Vice President – Head of Sales
Rodney Hester	Senior Vice President – Systems Infrastructure
Amy Neiley-Avayou	Senior Vice President – Trading Operations and Listings
Paul Anders (Andy) Nybo	Senior Vice President – Chief Communications Officer
Charles Blades	Vice President – Controller
Kateryna Brezitska	Vice President – Equities Planning and Development
Jonathan S. Dowd	Vice President – Business Strategy
Laurence Gardner	Vice President – Regulatory Operations
Mitchell Garfinkel	Vice President – Finance
Daniel Hsu	Vice President – Exchange Pricing & Business Analysis
Thomas Jarck	Vice President – Proprietary Product Development
Joseph P. Kamnik	Vice President – Senior Counsel
Gamini Karunaratne	Vice President – Network Engineering & Data Center Operations
Kaitlin Meyer	Vice President – Marketing and Sales
Ronald Miller	Vice President – Compliance
Lawrence O’Leary	Vice President – Regulatory Oversight
James O’Neil	Vice President and Director of Physical Security and Safety
Gerard (Chaz) Palmeri	Vice President – Systems Operations
Vinay Rao	Vice President – Trading Systems Development
Siddharth Sahoo	Vice President – Trading Systems Development
Christopher Solgan	Vice President – Senior Counsel
Christopher Swisher	Vice President – Market Surveillance
Tia Toms	Vice President – Administration
Gregory Ziegler	Vice President – Senior Counsel
Katherine Comly	Assistant Vice President, Associate Counsel and Director of ESG
Michael Slade	Assistant Vice President – Associate Counsel

The officers of MIAX PEARL, LLC serve until their successors are appointed in accordance with the By-Laws of MIAX PEARL, LLC. Officers of MIAX PEARL, LLC will serve at the direction of the Board of Directors.

Directors of MIAX PEARL, LLC

The following persons are the directors of MIAX PEARL, LLC:

Name
Thomas P. Gallagher
Talal Jassim Al-Bahar
Sean Barry
William T. Bergman
David Brown
Lindsay L. Burbage
Guy Dowman
Kurt M. Eckert
Leslie Florio
Michael Harrington
Lawrence E. Jaffe
Paul Kenyon
John E. McCormac
Miguel Moratiel
William J. O'Brien IV
Nathaniel Pomeroy
Robert D. Prunetti
Scott Richardson
Cynthia Schwarzkopf
Steven Sosnick
Erik Swanson
Christopher L. Whittington

Committees of MIAX PEARL, LLC

The standing committees of the Board and the persons appointed to sit on the standing committees are as follows:

Compensation Committee
Cynthia Schwarzkopf (Chair)
William T. Bergman
Robert D. Prunetti

Audit Committee
Robert D. Prunetti (Chair)
John E. McCormac
Cynthia Schwarzkopf

Regulatory Oversight Committee
Lindsay L. Burbage (Chair)
Leslie Florio
Lawrence E. Jaffe

Appeals Committee
Lawrence E. Jaffe (Chair)
Kurt M. Eckert
Guy Dowman

Technology Committee
Leslie Florio (Chair)
Sean Barry
David Brown
Kurt M. Eckert
John E. McCormac

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

D. MIAX SAPPHIRE, LLC

1. *Name:* MIAX Sapphire, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on April 6, 2023.
4. *Brief description of nature and extent of affiliation:* MIAX Sapphire, LLC ("MIAX Sapphire") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.
5. *Brief description of business or functions:* MIAX Sapphire is not yet active. MIAX Sapphire intends to register as a National Securities Exchange under Section 6 of the Securities Exchange Act of 1934, as amended. MIAX Sapphire intends to operate a fully electronic options trading platform as well as a trading floor in Miami, Florida.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Certificate of Formation dated April 6, 2023 is attached.

8. *A copy of existing by-laws or corresponding rules or instruments: The Limited Liability Company Agreement dated April 18, 2023 is attached.*
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of MIAX Sapphire, LLC

The following persons are the officers of MIAX Sapphire, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Lance Emmons	Executive Vice President and Chief Financial Officer
Edward Deitzel	Executive Vice President, Chief Regulatory Officer and Chief Compliance Officer
Shelly Brown	Executive Vice President – Strategic Planning and Business Development
Harish Jayabalan	Executive Vice President – Chief Risk Officer & Chief Information Security Officer
Randy Foster	Senior Vice President – Business Systems Development
Matthew Rotella	Senior Vice President – Chief Technology Officer

Directors of MIAX Sapphire, LLC

The following persons are the directors of MIAX Sapphire, LLC:

Name
Thomas P. Gallagher

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association: Not applicable.*

E. MIAMI INTERNATIONAL TECHNOLOGIES, LLC

1. *Name: Miami International Technologies, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540*
2. *Form of organization: Limited Liability Company.*

3. *Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on May 12, 2010.
4. *Brief description of nature and extent of affiliation:* Miami International Technologies, LLC ("MIAX Technologies") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.
5. *Brief description of business or functions:* MIAX Technologies engages in the sale and licensing of trading and information technology to unrelated third parties.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Amended and Restated Certificate of Formation dated June 29, 2011 is attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* The Second Amended and Restated Limited Liability Company Agreement dated June 25, 2021 is attached.
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of Miami International Technologies, LLC

The following persons are the officers of Miami International Technologies, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	President and Chief Information Officer
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Lance Emmons	Executive Vice President and Chief Financial Officer
Harish Jayabalan	Executive Vice President – Chief Information Security Officer
Matthew Rotella	Senior Vice President – Chief Technology Officer
Randy Foster	Senior Vice President – Business Systems Development
Deborah Carroll	Senior Vice President – Associate General Counsel and Assistant Corporate Secretary
Rodney Hester	Senior Vice President – Systems Infrastructure
Charles Blades	Vice President – Controller
Mitchell Garfinkel	Vice President – Finance
James O'Neil	Vice President and Director of Physical Security and Safety
Tia Toms	Vice President – Administration

Directors of Miami International Technologies, LLC

The following persons are the directors of Miami International Technologies, LLC:

Name
Thomas P. Gallagher

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

F. MIAX FUTURES, LLC

1. *Name:* MIAX Futures, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on November 30, 2007.
4. *Brief description of nature and extent of affiliation:* MIAX Futures, LLC ("MIAX Futures") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.
5. *Brief description of business or functions:* MIAX Futures is the owner of 51% of the outstanding membership interests in ConvexityShares, LLC.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Restated Certificate of Formation dated March 10, 2021 is attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* The Second Amended and Restated Limited Liability Company Agreement dated March 10, 2021 is attached.
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of MIAX Futures, LLC

The following persons are the officers of MIAX Futures, LLC:

Name	Title
Thomas P. Gallagher	Chairman
Joseph W. Ferraro III	President
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President

Name	Title
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Lance Emmons	Executive Vice President and Chief Financial Officer
Deborah Carroll	Senior Vice President – Associate General Counsel and Assistant Corporate Secretary
Randy Foster	Senior Vice President – Business Systems Development
Matthew Rotella	Senior Vice President – Chief Technology Officer
Thomas Jarck	Vice President – Proprietary Product Development

Directors of MIAX Futures, LLC

The following persons are the directors of MIAX Futures, LLC:

Name
Thomas P. Gallagher (Chair)
Kurt M. Eckert

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

G. THE BERMUDA STOCK EXCHANGE

- Name:* The Bermuda Stock Exchange
Address: 110 Pitts Bay Road, 4th Floor, Pembroke, Bermuda HM 08
- Form of organization:* A body corporate incorporated pursuant to The Bermuda Stock Exchange Act 1992.
- Name of state, statute under which organized and date of incorporation:* Bermuda, The Bermuda Stock Exchange Company Act 1992, on March 10, 1993.
- Brief description of nature and extent of affiliation:* Miami International Holdings, Inc., which is the applicant's 100% owner, is the owner of 100% of the outstanding shares of The Bermuda Stock Exchange ("BSX").
- Brief description of business or functions:* Stock Exchange located in Pembroke, Bermuda.
- A copy of the constitution:* Not applicable.
- A copy of the articles of incorporation or association including all amendments:* The Memorandum of Association dated March 10, 1993, is attached.
- A copy of existing by-laws or corresponding rules or instruments:* The Amended and Restated Bye-Laws dated July 21, 2003, are attached.

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of The Bermuda Stock Exchange

The following persons are the officers of The Bermuda Stock Exchange:

Name	Title
Gregory A. Wojciechowski	President & Chief Executive Officer
Gregory A. Wojciechowski	Secretary
Ailish Bryne	Chief Compliance Officer
Jacintha Pogson-Hughes	Chief Administration Officer

Council (Directors) of The Bermuda Stock Exchange

The following persons are the council of The Bermuda Stock Exchange:

Council
Thomas P. Gallagher (Chairman)
David Brown (Deputy Chairman)
Jeff Conyers
Kurt M. Eckert
Caroline Kennedy
Mark Massad
Michael Neff
Eric Sites
Murray Stahl
Gregory A. Wojciechowski

Committees of The Bermuda Stock Exchange

Business Development Committee
Eric Sites
Jeff Conyers
Michael Neff
Gregory A. Wojciechowski

Compensation Committee
Thomas P. Gallagher
David Brown
Jeff Conyers
Michael Neff

Executive Management Committee
Thomas P. Gallagher
David Brown
Jeff Conyers
Michael Neff

Listing Committee
Dudley Cottingham
Sharon Beesley
Miguel DaPonte
Susan Monkman
Marco Montarsolo
Gregory A. Wojciechowski

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

H. BSD NOMINEE LIMITED

1. *Name:* BSD Nominee Limited
Address: 110 Pitts Bay Road, 4th Floor, Pembroke, Bermuda HM 08
2. *Form of organization:* A body corporate incorporated pursuant to Bermuda, The Companies Act 1981.
3. *Name of state, statute under which organized and date of incorporation:* Organized in Bermuda under The Companies Act 1981 on October 24, 2001. Registered in Bermuda under Section 14 of The Companies Act 1981 on November 1, 2001.
4. *Brief description of nature and extent of affiliation:* Miami International Holdings, Inc., which is the applicant's 100% owner, is the owner of 100% of the outstanding shares of The Bermuda Stock Exchange ("BSX"). BSX is the owner of 100% of the outstanding shares of BSD Nominee Limited.
5. *Brief description of business or functions:* To be the legal owner of shares held for the benefit of account holders of the Bermuda Securities Depository of BSX and to provide nominee services in relation to such shares.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Memorandum of Association dated October 24, 2001, and related documents is attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* Not applicable.

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Council (Directors) of BSD Nominee Limited

The following persons are the council of BSD Nominee Limited:

Council
Gregory A. Wojciechowski
James McKirdy

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

I. M 402 HOLDINGS, LLC

- Name:* M 402 Holdings, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
- Form of organization:* Limited Liability Company.
- Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on June 27, 2020.
- Brief description of nature and extent of affiliation:* M 402 Holdings, LLC ("M 402") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner. Minneapolis Grain Exchange, LLC ("MGEX") is a wholly-owned subsidiary of M 402.
- Brief description of business or functions:* M 402 is a holding company for the equity and voting securities of MGEX.
- A copy of the constitution:* Not applicable.
- A copy of the articles of incorporation or association including all amendments:* The Certificate of Formation dated July 27, 2020 is attached.
- A copy of existing by-laws or corresponding rules or instruments:* The Limited Liability Company Agreement dated July 27, 2020 and By-Laws dated July 27, 2020 are attached.

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of M 402 Holdings, LLC

The following persons are the officers of M 402 Holdings, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Lance Emmons	Executive Vice President and Chief Financial Officer

Directors of M 402 Holdings, LLC

The following persons are the directors of M 402 Holdings, LLC:

Name
Thomas P. Gallagher

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

J. MINNEAPOLIS GRAIN EXCHANGE, LLC

- Name:* Minneapolis Grain Exchange, LLC
Address: 400 S 4th St, Minneapolis, MN 55415
- Form of organization:* Limited Liability Corporation.
- Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on December 4, 2020.
- Brief description of nature and extent of affiliation:* Miami International Holdings, Inc. is the sole member and owner of M 402 Holdings, LLC, which in turn is the sole member and owner of 100% of the equity and voting securities of Minneapolis Grain Exchange, LLC (“MGEX”).
- Brief description of business or functions:* MGEX is a designated contract market and derivatives clearing organization that operates under the regulatory oversight of the Commodity Futures Trading Commission pursuant to Section 5 of the Commodity Exchange Act 7 U.S.C. §7. MGEX is also registered as a national securities exchange under Section 6(g) of Securities Exchange Act.
- A copy of the constitution:* Not applicable.

7. *A copy of the articles of incorporation or association including all amendments:* The Certificate of Formation dated December 4, 2020 is attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* The Limited Liability Company Agreement dated December 4, 2020 and Bylaws dated December 4, 2020 are attached.
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of Minneapolis Grain Exchange, LLC

The following persons are the officers of Minneapolis Grain Exchange, LLC:

Name	Title
Mark G. Bagan	President & Chief Executive Officer
Layne G. Carlson	Treasurer, Secretary, Chief Compliance Officer & Chief Regulatory Officer
James D. Facente, Jr.	Director & Chief Risk Officer – Clearing & IT

Directors of Minneapolis Grain Exchange, LLC

The following persons are the directors of Minneapolis Grain Exchange, LLC:

Name
Thomas P. Gallagher, Chair
De’Ana H. Dow
Michael V. Dunn
Bradley Griffith
Christopher T. Matzdorf
Kerry L. Melius
Murray Stahl

Standing Committees of Minneapolis Grain Exchange, LLC

Executive Committee
Thomas P. Gallagher, Chairperson
Kerry L. Melius, First Vice Chairperson
Bradley Griffith
Murray Stahl
Mark G. Bagan*

Audit Committee
Thomas P. Gallagher, Chairperson
Mark G. Bagan
De'Ana H. Dow
Michael V. Dunn
Bradley Griffith

Nominations Committee
Bradley Griffith, Chairperson
De'Ana H. Dow
Michael V. Dunn
Thomas P. Gallagher
Christopher T. Matzdorf
Mark G. Bagan*

Regulatory Oversight Committee
De'Ana H. Dow, Chairperson
Michael V. Dunn
Bradley Griffith
Thomas P. Gallagher*
Mark G. Bagan*

Risk Management Committee
Bradley Griffith, Chairperson
De'Ana H. Dow
Thomas P. Gallagher*
Mark G. Bagan*

* Ex officio committee member

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

K. MIAX GLOBAL, LLC

1. *Name:* MIAX Global, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on June 30, 2015.

4. *Brief description of nature and extent of affiliation:* MIAX Global, LLC ("MIAX Global") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.
5. *Brief description of business or functions:* MIAX Global focuses on the company's trading, technology and other projects primarily based outside the United States.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Amended and Restated Certificate of Formation dated June 25, 2021 is attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* The Amended and Restated Limited Liability Company Agreement dated June 25, 2021 is attached.
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of MIAX Global, LLC

The following persons are the officers of MIAX Global, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Lance Emmons	Executive Vice President and Chief Financial Officer
Gregory A. Wojciechowski	President

Directors of MIAX Global, LLC

The following persons are the directors of MIAX Global, LLC:

Name
Thomas P. Gallagher

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

L. MIAX PRODUCTS, LLC

- 1. *Name:* MIAX Products, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
- 2. *Form of organization:* Limited Liability Company.
- 3. *Name of state, statute under which organized and date of incorporation:* Illinois, Illinois Limited Liability Company Act, 805 ILCS 180, on January 25, 2019.
- 4. *Brief description of nature and extent of affiliation:* MIAX Products, LLC ("MIAX Products") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.
- 5. *Brief description of business or functions:* Development of financial products.
- 6. *A copy of the constitution:* Not applicable.
- 7. *A copy of the articles of incorporation or association including all amendments:* The Restated Articles of Organization dated October 5, 2021 are attached.
- 8. *A copy of existing by-laws or corresponding rules or instruments:* The Amended and Restated Limited Liability Company Agreement dated October 5, 2021 is attached.
- 9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of MIAX Products, LLC

The following persons are the officers of MIAX Products, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President

Directors of MIAX Products, LLC

The following persons are the directors of MIAX Products, LLC:

Name
Thomas P. Gallagher

- 10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

M. DORMAN TRADING, LLC

1. *Name:* Dorman Trading, LLC
Address: 141 W. Jackson Boulevard, Suite 1900, Chicago, Illinois 60604
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Illinois, Illinois Limited Liability Company Act, 805 ILCS 180, on June 18, 2015.
4. *Brief description of nature and extent of affiliation:* Dorman Trading, LLC (“Dorman Trading”) is wholly-owned by Miami International Holdings, Inc., which is the applicant’s 100% owner.
5. *Brief description of business or functions:* Dorman Trading is a full-service futures commission merchant (FCM) providing execution and clearing services for introducing brokers, retail customers, institutional clients and professional traders on a number of futures exchanges.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Articles of Organization dated June 18, 2015 are attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* The Fourth Amended and Restated Operating Agreement and Bylaws dated October 19, 2022 are attached.
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of Dorman Trading, LLC.

The following persons are the officers of Dorman Trading, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Daniel P. Dorman	Senior Vice President, Chief Operating Officer and Assistant Secretary
David Dorman	Senior Vice President, Operations
Robert Sheeren	Chief Financial Officer
Michael Higgins	Chief Compliance Officer
Mark Robertson	Vice President, Clearing and Floor Operations
Brian Gaffud	Vice President, Director of Business Development
Michael Stanton	Vice President, Business Development
James Tometz	Vice President, Operations
Wesley Chiu	Assistant Chief Financial Officer
Barbara J. Comly	Secretary

Directors of Dorman Trading, LLC

The following persons are the directors of Dorman Trading, LLC:

Name
Thomas P. Gallagher (Chairman)
Robert D. Prunetti
Brian Duggan

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

N. M 7 HOLDINGS, LLC

- Name:* M 7 Holdings, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
- Form of organization:* Limited Liability Company.
- Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on November 15, 2022.
- Brief description of nature and extent of affiliation:* M 7 Holdings, LLC ("M 7") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.
- Brief description of business or functions:* M 7 is a holding company for certain investments.
- A copy of the constitution:* Not applicable.
- A copy of the articles of incorporation or association including all amendments:* The Certificate of Formation dated November 15, 2022 is attached.
- A copy of existing by-laws or corresponding rules or instruments:* The Limited Liability Company Agreement and By-Laws dated December 9, 2022 are attached.
- The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of M 7 Holdings, LLC

The following persons are the officers of M 7 Holdings, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer

Name	Title
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Lance Emmons	Executive Vice President and Chief Financial Officer

Directors of M 7 Holdings, LLC

The following persons are the directors of M 7 Holdings, LLC:

Name
Thomas P. Gallagher

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

O. MIH EAST HOLDINGS, LIMITED

1. *Name:* MIH East Holdings, Limited
Address: 7 Roszel Road, Suite 1A, Princeton, New Jersey 08540
2. *Form of organization:* Private Limited Company.
3. *Name of state, statute under which organized and date of incorporation:* England and Wales, Companies Act 2006, on March 20, 2023.
4. *Brief description of nature and extent of affiliation:* MIH East Holdings, Limited ("MIH East") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.
5. *Brief description of business or functions:* MIH East is a holding company for certain investments.
6. *A copy of the constitution:* Not applicable.
7. *A copy of the articles of incorporation or association including all amendments:* The Certificate of Incorporation dated March 20, 2023, is attached.
8. *A copy of existing by-laws or corresponding rules or instruments:* The Articles of Association are attached.

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of MIH East Holdings, Limited

The following persons are the officers of MIH East Holdings, Limited:

Name	Title
Thomas P. Gallagher	Executive Officer
Lance Emmons	Chief Financial Officer

Directors of MIH East Holdings, Limited

The following persons are the directors of MIH East Holdings, Limited:

Name
Thomas P. Gallagher
Lance Emmons

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

P. CONVEXITYSHARES, LLC

- Name:* ConvexityShares, LLC
Address: 7 Roszel Road, Suite 1A, Princeton, NJ 08540
- Form of organization:* Limited Liability Company.
- Name of state, statute under which organized and date of incorporation:* Delaware, Delaware Limited Liability Company Act (6 Del. C. § 18-101, et seq.), on December 3, 2020.
- Brief description of nature and extent of affiliation:* MIAX Futures, LLC, which is wholly-owned by Miami International Holdings, Inc., the applicant's 100% owner, is the owner of 51% of the outstanding membership interests of ConvexityShares, LLC.
- Brief description of business or functions:* Sponsor of certain exchange-traded products. ConvexityShares, LLC is a registered Commodity Pool Operator (CPO) and Commodity Trading Advisor (CTA) with the National Futures Association (NFA).
- A copy of the constitution:* Not applicable.
- A copy of the articles of incorporation or association including all amendments:* The Certificate of Formation dated December 3, 2020 is attached.

8. *A copy of existing by-laws or corresponding rules or instruments:* The Limited Liability Company Operating Agreement dated February 5, 2021 and First Amendment to Limited Liability Company Operating Agreement dated March 10, 2021 are attached.
9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Managers of ConvexityShares, LLC

The following are the managers of ConvexityShares, LLC:

Name
MIAX Futures, LLC
T3i US Holdings Inc.

Officers of ConvexityShares, LLC

The following persons are the officers of ConvexityShares, LLC:

Name	Title
Simon Ho	Interim Chief Executive Officer & President
Melinda Ho	Treasurer, Chief Financial Officer & Secretary
Joseph W. Ferraro III	Interim Chief Compliance Officer
Charles Blades	Controller

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association:* Not applicable.

CERTIFICATE OF FORMATION


OF

MIAX SAPPHIRE, LLC

THIS IS TO CERTIFY that there is hereby formed a limited liability company under and by virtue of the Delaware Limited Liability Company Act (the "Act") (6 Del. C. §18-101, et. seq.).

1. The name of the limited liability company is **MIAX Sapphire, LLC** (the "Company").
2. The address of the registered office of the Company in the State of Delaware is 1209 Orange Street in the City of Wilmington, County of New Castle, ZIP Code 19801, and the name of the registered agent at such address for service of process is The Corporation Trust Company.
3. This Certificate shall be effective upon filing.
4. The duration of this limited liability company will be perpetual.

IN WITNESS WHEREOF, the undersigned, an authorized person, has signed this certificate this 6th day of April, 2023.



KATHERINE S. COMLY
7 Roszel Road, Suite 1A
Princeton, NJ 08540

**LIMITED LIABILITY COMPANY AGREEMENT
OF
MIAX SAPPHIRE, LLC**

The undersigned is executing this Limited Liability Company Agreement (the “Agreement”) as of April 18th, 2023, for the purpose of forming a limited liability company (the “Company”) pursuant to the provisions of the Delaware Limited Liability Company Act, 6 Del. C. § 18-101 et seq., as amended from time to time (the “Act”), and does hereby agree as follows:

1. **Formation.** A certificate of formation of the Company (the “Certificate”) was executed and filed with the Office of the Secretary of State of the State of Delaware on April 6, 2023.

2. **Name.** The name of the limited liability company shall be “**MIAX Sapphire, LLC**”, or such other name as the Member may from time to time hereafter designate.

3. **Definitions.** Capitalized terms not otherwise defined herein shall have the meanings set forth therefor in Section 18-101 of the Act.

4. **Purpose.** The Company is formed for the purpose of engaging in any lawful business permitted by the Act or the laws of any jurisdiction in which the Company may do business. The Company shall have the power to engage in all activities and transactions which the Member deems necessary or advisable in connection with the foregoing.

5. **Offices.** The principal place of business and office of the Company shall be located at, and the Company’s business shall be conducted from, such place or places as the Member may designate from time to time.

The registered office of the Company in the State of Delaware shall be located at c/o The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801. The name and address of the registered agent of the Company for service of process on the Company in the State of Delaware shall The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801. The Member may from time to time change the registered agent or office by an amendment to the certificate of formation of the Company.

6. **Member.** Miami International Holdings, Inc. is the sole member of the Company (the “Member”) holding 100% of the membership interests of the Company. The name and business or residence address of the Member is 7 Roszel Road, Suite 1A, Princeton, NJ 08540.

7. **Term.** The term of the Company shall commence on the date of filing of the certificate of formation of the Company in accordance with the Act and shall continue until the Company is dissolved and its affairs are wound up in accordance with Section 17 of this Agreement and a certificate of cancellation is filed in accordance with the Act.

8. **Board of Directors; Delegation of Authority and Duties.**

(a) **Member and Board of Directors.** The Member, acting through the Board (defined below), shall manage and control the business and affairs of the Company, and shall possess all rights and powers as provided in the Act and otherwise by law. Except as otherwise expressly provided for herein, the Member hereby consents to the exercise by the Board of all such powers and rights conferred on them by the Act with respect to the management and control of the Company. Notwithstanding the foregoing and except as explicitly set forth in this Agreement, if a vote, consent or approval of the Member is required by the Act or other applicable law with respect to any act to be taken by the Company or matter considered by the Board, the Member agrees that it shall be deemed to have consented to or approved such act or voted on such matter in accordance with a vote of the Board on such act or matter.

(b) **Delegation by Board.** The Board shall have the power and authority to delegate to one or more other persons the Board's rights and powers to manage and control the business and affairs of the Company, including to delegate to agents and employees of the Member, a Director (as defined below) or the Company (including Officers), and to delegate by a management agreement or another agreement with, or otherwise to, other persons. The Board may authorize any person (including, without limitation, the Member or any Officer or Director) to enter into and perform under any document on behalf of the Company.

(c) **Committees.** The Board may, from time to time, designate one or more committees, each of which shall be comprised of at least two Directors. Any such committee, to the extent provided in the enabling resolution and until dissolved by the Board, shall have and may exercise any or all of the authority of the Board. At every meeting of any such committee, the presence of a majority of all the representatives thereof shall constitute a quorum, and the affirmative vote of a majority of the representatives present shall be necessary for the adoption of any resolution. The Board may dissolve any committee at any time, unless otherwise provided in this Agreement.

9. **Establishment of Board of Directors.**

(a) **Directors.** There shall be established a Board of Directors (the "Board") composed of not less than (1) and no more than twenty-one (21) persons as determined from time to time by the Member ("Directors"), each of whom shall be elected by the Member. Any Director may be removed from the Board at any time by the Member. Each Director shall remain in office until his or her death, resignation or removal. In the event of death, resignation or removal of a Director, the party or parties, as applicable, which appointed such Director shall fill the vacancy created. Notwithstanding anything in this Agreement to the contrary, Directors shall not be deemed to be "members" or "managers" (as such terms are defined in the Act) of the Company.

(b) **No Individual Authority.** No Director has the authority or power to act for or on behalf of the Company, to do any act that would be binding on the Company or to make any expenditures or incur any obligations on behalf of the Company or authorize any of the foregoing, other than acts that are authorized by the Board.

(c) **Chairman.** The Board shall designate a Director to serve as chairman. The chairman shall, unless a majority of Directors present determine otherwise, preside at all meetings of the Board. If the chairman is absent at any meeting of the Board, a majority of the Directors present shall designate another Director to serve as interim chairman for that meeting.

10. **Officers.** The Member may, from time to time as it deems advisable, designate natural persons as officers of the Company (the “Officers”) or successor Officers of the Company and assign titles to any such person. Unless the Member decides otherwise, if the title is one commonly used for officers of a business corporation formed under the Delaware General Corporation Law, the assignment of such title shall constitute the delegation to such person of the authorities and duties that are normally associated with that office. Any delegation pursuant to this Section 8 may be revoked at any time by the Member. An Officer may be removed with or without cause at any time by the Member.

11. **Advisory Board.** The Member may appoint any person or persons to act in an advisory capacity to the Company. Such a group shall be known as the Advisory Board.

12. **Capital Contributions.** The Member shall make capital contributions to the Company from time to time, which amounts shall be set forth in the books and records of the Company.

13. **Transfers of Member Interest.** The Member may sell, assign, pledge or otherwise transfer or encumber (collectively, a “Transfer”) any of its Limited Liability Company Interest in the Company to any Person so long as such Transfer is in writing.

14. **Resignation.** The Member shall have the right to resign from the Company so long as such resignation is in writing. The provisions hereof with respect to distributions upon resignation are exclusive and no Member shall be entitled to claim any further or different distribution upon resignation under Section 18-604 of the Act or otherwise.

15. **Allocations and Distributions.** Distributions of cash or other assets of the Company shall be made at such times and in such amounts as the Member may determine. Distributions shall be made to (and profits and losses of the Company shall be allocated among) the Member.

16. **Return of Capital.** The Member has the right to receive any distributions which include a return of all or any part of such Member’s capital contribution, provided that upon the dissolution and winding up of the Company, the assets of the Company shall be distributed as provided in Section 18-804 of the Act.

17. **Dissolution.** The Company shall be dissolved and its affairs wound up upon the occurrence of an event causing a dissolution of the Company under Section 18-801 of the Act, except the Company shall not be dissolved upon the occurrence of an event that terminates the continued membership of a Member if (i) at the time of the occurrence of such event there are at least two Members of the Company, or (ii) within ninety (90) days after the occurrence of such event, all remaining Members agree in writing to continue the business of the Company and to the

appointment, effective as of the date of such event, of one or more additional Members. In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority set forth in Section 18-804 of the Act.

18. **Amendments.** This Agreement may be amended only upon the written consent of the Member.

19. **Other Business.** The Member may engage in or possess an interest in other business ventures of every kind and description, independently or with others. The Company shall not have any rights in or to such independent ventures or the income or profits therefrom by virtue of this Agreement.

20. **Limited Liability.** The Member shall not have any liability for the debts, obligations or liabilities of the Company except to the extent provided by the Act.

21. **Exculpation; Indemnification.** Neither the Member, the Officers nor any of their respective affiliates or agents (collectively, "Covered Persons") shall be liable to the Company or any other person or entity who has an interest in the Company for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement. To the fullest extent permitted by applicable law, each Covered Person shall be entitled to indemnification from the Company for any loss, damage or claim incurred by such Covered Person by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement; provided, however, that any indemnity under this Section 21 shall be provided out of and to the extent of Company assets only, and neither the Member nor the Officer, as applicable, nor any other Covered Person, shall have personal liability on account thereof.

22. **Banking Matters.** The Member and each Officer and any agent or employee of the Company, or other person designated by such Member or Officer is hereby authorized and empowered (A) to (i) establish one or more domestic or international accounts (including but not limited to, depository, checking, disbursement, custodian, or investment accounts, and other accounts as deemed necessary or expeditious for business purposes of the Company) ("Accounts"), in the name of the Company with any bank, trust company, savings and loan institution, brokerage firm or other financial institution which said Member or Officer shall from time to time designate as a depository of funds, securities or other property of the Company, for any purpose and on terms and conditions deemed appropriate by such person on behalf of the Company; and (ii) close Accounts of the Company now or hereafter established; and (B) to assign, limit or revoke any and all authority of any agent or employee of the Company, or other person designated by such Member or Officer to (i) sign checks, drafts and orders for the payment of money drawn on the Company's Accounts, and all notes of the Company and all acceptances and endorsements of the Company; (ii) execute or initiate electronic fund transfers; (iii) execute or initiate foreign currency

exchange transactions; (iv) execute or initiate the investment of monies; and (v) initiate requests for information for any Account of the Company.

23. **Amendment**. This Agreement may only be amended by a writing duly signed by the Member.

24. **Governing Law**. This Agreement shall be governed by, and construed under, the laws of the State of Delaware, without regard to conflict of law rules.

IN WITNESS WHEREOF, the undersigned has duly executed this Agreement as of the date first written above.

MIAMI INTERNATIONAL HOLDINGS, INC.

By: 

THOMAS P. GALLAGHER
Chairman and Chief Executive Officer
7 Roszel Road, Suite 1A
Princeton, NJ 08540