## **EXHIBIT 5**

New text is underlined; deleted text is in brackets.

The Nasdaq Stock Market LLC Rules

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**Options Rules** 

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**Options 3 Options Trading Rules** 

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Section 4. Entry and Display of Quotes

[OTTO functionality implementation shall be delayed until Q2 2021. The Exchange will issue an Options Trader Alert notifying Participants when this functionality will be available.]

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Section 7. Types of Orders and Order and Quote Protocols

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[OTTO functionality implementation shall be delayed until Q2 2021. The Exchange will issue an Options Trader Alert notifying Participants when this functionality will be available. ]

- (d) Entry and Display of Orders and Quotes. Participants may enter orders and quotes into the System as specified below.
  - (1) The Exchange offers Participants the following protocols for entering orders and quotes respectively:

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(C) <u>Reserved.</u> ["Ouch to Trade Options" or "OTTO" is an interface that allows Participants and their Sponsored Customers to connect, send, and receive messages related to orders to and from the Exchange. Features include the following: (1) options symbol directory messages (e.g., underlying); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) order messages; and (6) risk protection triggers and cancel notifications.]

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## **Section 8. Opening and Halt Cross**

[OTTO functionality implementation shall be delayed until Q2 2021. The Exchange will issue an Options Trader Alert notifying Participants when this functionality will be available.]

(a) Definitions. For the purposes of this Rule the term:

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(4) "Eligible Interest" shall mean any quotation or any order that may be entered into the system and designated with a time-in-force of IOC (immediate-or-cancel), DAY (day order), GTC (good-till-cancelled), and OPG (On the Open Order). However, orders received via FIX [and OTTO] protocol prior to the Nasdaq Opening Cross designated with a time-in-force of IOC will be rejected and shall not be considered eligible interest. Orders received via QUO and quotes received via SQF prior to the Nasdaq Opening Cross designated with a time-inforce of IOC will remain in-force through the opening and shall be cancelled immediately after the opening.

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## Section 18. Detection of Loss of Communication

- (a) When the SQF Port detects the loss of communication with a NOM Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the NOM Participant's affected Client Application and automatically cancel all of the NOM Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same NOM Options Market Maker ID and underlying issues.
  - (1) A "Heartbeat" message is a communication which acts as a virtual pulse between the SQF or FIX Port and the Client Application. The Heartbeat message sent by the NOM Participant and subsequently received by the Exchange allows the SQF or FIX Port to continually monitor its connection with the NOM Participant.
  - (2) SQF Port is the Exchange's System component through which NOM Participants communicate their quotes from the Client Application.
  - (3) FIX [and OTTO] Ports are the Exchange's System component through which NOM Participants communicate their orders from the Client Application.
  - (4) QUO is the Exchange's System component through which NOM Market Makers communicate orders from the Client Application.
  - (5) Client Application is the System component of the Participant through which the NOM Participant communicates its quotes and orders to the Exchange.

- (b) When the FIX Port detects the loss of communication with a NOM Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the NOM Participant's affected Client Application and, if the NOM Participant has elected to have its orders cancelled pursuant to Options 3, Section 18([d]e), automatically cancel all open orders posted.
- [(c) When the OTTO Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if the Participant has elected to have its orders cancelled pursuant to Options 3, Section 18(g) automatically cancel all open orders posted.]
- ([d]c) When the QUO Port detects the loss of communication with a NOM Market Maker's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the NOM Market Maker's affected Client Application and if the NOM Market Maker has elected to have its orders cancelled pursuant to Options 3, Section 18([h]f) automatically cancel all open orders posted.
- ([e]d) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A NOM Market Maker may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (a) above, to trigger the disconnect and must communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for SQF Ports prior to each session of connectivity to the Exchange. This feature is enabled for each NOM Market Maker and may not be disabled.
  - (A) If the NOM Market Maker systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The NOM Market Maker change the default setting systemically prior to each session of connectivity.
  - (B) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the NOM Market Maker shall persist for each subsequent session of connectivity until the NOM Market Maker either contacts Exchange operations and changes the setting or the NOM Market Maker systemically selects another time period prior to the next session of connectivity.
- ([f]e) The default period of "nn" seconds for FIX Ports shall be thirty (30) seconds for the disconnect and, if elected, the removal of orders. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (b) above, to trigger the disconnect and removal of orders and communicate that time to

- the Exchange. The period of "nn" seconds may be modified to a number between one (1) second and thirty (30) seconds for FIX Ports prior to each session of connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.
  - (A) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to thirty seconds. The Participant may change the default setting systemically prior to each session of connectivity.
  - (B) If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.
- [(g) The default time period ("nn" seconds) for OTTO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (c) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for OTTO Ports prior to each session of connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.
  - (A) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The Participant may change the default setting systemically prior to each session of connectivity.
  - (B) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.]
- ([h]f) The default time period ("nn" seconds) for QUO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. If the NOM Market Maker elects to have its orders removed, in addition to the disconnect, the NOM Market Maker may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph ([d]c) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for QUO Ports prior to each session of connectivity to the

Exchange. This feature may be disabled for the removal of orders, however the NOM Market Maker will be disconnected.

- (A) If the NOM Market Maker systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The NOM Market Maker may change the default setting systemically prior to each session of connectivity.
- (B) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the NOM Market Maker shall persist for each subsequent session of connectivity until the NOM Market Maker either contacts Exchange operations and changes the setting or the NOM Market Maker systemically selects another time period prior to the next session of connectivity.
- ([i]g) The trigger for the SQF, FIX, and QUO [and OTTO] Ports is event and Client Application specific. The automatic cancellation of the NOM Market Maker's quotes for SQF Ports and open orders for FIX[,]and QUO[ and OTTO] Ports entered into the respective SQF, FIX, or QUO [or OTTO] Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other NOM Market Makers entered into SQF Ports or orders of the same or other Participants entered into the FIX[,]or QUO [or OTTO] Ports via a separate and distinct Client Application.

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