

Nasdaq GEMX INET System Settings

1. Hours of Operation

6:00 a.m. ET – System begins accepting orders.

9:30 a.m. ET – System begins disseminating imbalance and price information for the opening auction. 9:30 a.m. ET – System begins executing orders.

4:00 p.m. ET – System stops accepting and executing equity options orders.

4:15 p.m. ET – System stops accepting and executing ETF and Index Options orders.

2. OPENING

- The GEMX Opening Process utilizes the Primary Listing Market for the Underlying Security. The underlying security must be open on the primary market for 100ms for the Opening Process to commence.
- **Valid Width Quote Differentials Table:** The table of values defined as an acceptable bid/ask differential for individual market maker quotes required to begin the opening process and open with a trade in absence of an executable opening cross.

Bid Price low end of range	Bid Price high end of range	Maximum bid/ask differential
\$0.00	\$1.99	\$0.75
\$2.00	\$4.99	\$1.20
\$5.00	\$9.99	\$1.50
\$10.00	\$19.99	\$2.40
\$20.00	\$20.00+	\$3.00

The Options 3, Section 8 Valid Width Quote requirement shall not apply to options series where the time until expiration is less than nine (9) months for equity options, exchange-traded products, and foreign currencies and less than twelve (12) months for index options.

- **Quality Opening Market Differentials Table** – The table of values defined as an acceptable bid/ask differential in order to establish a “quality opening market.”

– Non-Penny Issues:

Price low end of range	Price high end of range	Maximum bid/ask differential
\$0.00	\$1.00	\$0.15
\$1.01	\$2.00	\$0.22
\$2.01	\$3.00	\$0.30
\$3.01	\$5.00	\$0.45
\$5.01	\$7.00	\$0.60
\$7.01	\$10.00	\$0.75
\$10.01	\$20.00	\$0.90
\$20.01	\$30.00	\$1.20
\$30.01	\$40.00	\$1.50
\$40.01	40.01+	\$2.25

– Standard Penny Issues (excluding SPY/IWM/QQQQ):

Price low end of range	Price high end of range	Maximum bid/ask differential
\$0.00	\$1.00	\$0.10
\$1.01	\$2.00	\$0.10
\$2.01	\$3.00	\$0.14
\$3.01	\$5.00	\$0.20
\$5.01	\$7.00	\$0.30
\$7.01	\$10.00	\$0.40
\$10.01	\$15.00	\$0.60
\$15.01	\$20.00	\$0.80
\$20.01	\$30.00	\$1.20
\$30.01	\$40.00	\$1.60
\$40.01	\$40.01+	\$2.00

– Special Penny Issues (SPY/IWM/QQQQ)

Price low end of range	Price high end of range	Maximum bid/ask differential
\$0.00	\$0.40	\$0.06
\$0.41	\$1.00	\$0.10
\$1.01	\$2.00	\$0.12
\$2.01	\$3.00	\$0.14
\$3.01	\$5.00	\$0.18
\$5.01	\$7.00	\$0.24
\$7.01	\$10.00	\$0.40
\$10.01	\$15.00	\$0.60
\$15.01	\$20.00	\$0.80
\$20.01	\$30.00	\$1.00
\$30.01	\$40.00	\$1.20
\$40.01	\$40.01+	\$1.60

- **Opening Quote Range Table** – The table of values added to the offer and subtracted from the bid to establish GEMX's maximum Opening Quote Range.

– **Non-Penny Issues:**

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Range Multiplier for options that expire >9 months away
\$0.00	\$1.00	\$0.10	1.5X
\$1.01	\$2.00	\$0.15	1.5X
\$2.01	\$3.00	\$0.20	1.5X
\$3.01	\$5.00	\$0.30	1.5X
\$5.01	\$7.00	\$0.40	1.5X
\$7.01	\$10.00	\$0.50	1.5X
\$10.01	\$20.00	\$0.60	1.5X
\$20.01	\$30.00	\$0.80	1.5X
\$30.01	\$40.00	\$1.00	1.5X
\$40.01	+	\$1.50	1.5X

– **Standard Penny Issues (excluding SPY/IWM/QQQQ):**

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Acceptable Range for options that expire >9 months away
\$0.00	\$1.00	\$0.05	\$0.10
\$1.01	\$2.00	\$0.05	\$0.14
\$2.01	\$3.00	\$0.07	\$0.18
\$3.01	\$5.00	\$0.10	\$0.40
\$5.01	\$7.00	\$0.15	\$0.50
\$7.01	\$10.00	\$0.20	\$0.60
\$10.01	\$15.00	\$0.30	\$0.75
\$15.01	\$20.00	\$0.40	\$0.90
\$20.01	\$30.00	\$0.60	\$1.20
\$30.01	\$40.00	\$0.80	\$1.50
\$40.01	+	\$1.00	\$2.25

– **Special Penny Issues (SPY/IWM/QQQQ)**

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Range Multiplier for options that expire >9 months away
\$0.00	\$0.40	\$0.03	2.0X
\$0.41	\$1.00	\$0.05	2.0X
\$1.01	\$2.00	\$0.06	2.0X
\$2.01	\$3.00	\$0.07	2.0X
\$3.01	\$5.00	\$0.09	2.0X
\$5.01	\$7.00	\$0.12	2.0X
\$7.01	\$10.00	\$0.20	2.0X
\$10.01	\$15.00	\$0.30	1.5X

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Range Multiplier for options that expire >9 months away
\$15.01	\$20.00	\$0.40	1.5X
\$20.01	\$30.00	\$0.50	1.5X
\$30.01	\$40.00	\$0.60	1.5X
\$40.01	+	\$0.80	1.5X

- **Imbalance Timer – 250 milliseconds** – Amount of time the system may wait before opening an option with an imbalance after broadcasting an Imbalance Message.
- **Number of Imbalance Process Iterations before an Opening with an Imbalance** – 4 iterations – Number of times the system will repeat the imbalance process before opening with a remaining imbalance.
- **Opening Route Timer – 200 ms** – Amount of time the system waits before routing to an away market as part of the opening process.
- **Opening Order Cancel Timer – 30 seconds** – Period of time after the primary market underlying has opened and GEMX has not initiated an Opening Cross, at which all non-GTC orders submitted over FIX and OTTO in the affected option will be cancelled back to the sending firm. This feature is optional to participants and is engaged at the firm mnemonic level Section 8(k).

3. ACCEPTABLE TRADE RANGE & PROTECTIONS

- **Max number of Acceptable Trade Range Iterations:** 1
- **Acceptable Trade Range (ATR)** – Acceptable Trade Range boundaries limiting the range of prices incoming Simple Orders and quotes (except for All-or-None Orders) will be allowed to execute.

Non-Penny Issues

Price low end of range	Price high end of range	Acceptable Range from Reference Price
\$0.00	\$3.00	\$0.25
\$3.01	+	\$0.50

Standard Penny Issues (excluding SPY/IWM/QQQQ):

Price low end of range	Price high end of range	Acceptable Range From Reference Price
\$0.00	\$3.00	\$0.05
\$3.01	+	\$0.25

Special Penny Issues (SPY/IWM/QQQQ)

Price low end of range	Price high end of range	Acceptable Range From Reference Price
\$0.00	\$3.00	\$0.05
\$3.01	+	\$0.05

- **Market Order Spread Protection - \$5.00** – Maximum bid/ask differential permissible for a Market Order to be accepted by the trading system; if the bid/ask differential is wider than \$5.00, a Market Order submitted into the system will be rejected. All symbols are configured at 5.00, with the following exceptions:

Symbol	Width
AZO	\$20.00
BIO	\$20.00
BKNG	\$22.00
BLK	\$20.00
CHE	\$20.00
CHTR	\$20.00
CMG	\$20.00
EQIX	\$20.00
ISRG	\$20.00
LMT	\$20.00
MELI	\$20.00
MKL	\$22.00
MTD	\$20.00
NDX	\$100.00
NOC	\$20.00
ORLY	\$20.00
REGN	\$20.00
ROP	\$20.00
SIVB	\$20.00
TDG	\$20.00
TSLA	\$20.00
Y	\$20.00

4. AUCTIONS

- **Auction Timers** – Below are the auction timer configurations for GEMX:

Auction Type	Duration
Facilitation	100 milliseconds
Flash	150 milliseconds
PIM	100 milliseconds
Solicitation	100 milliseconds
Block	100 milliseconds

5. Message Traffic Mitigation

- GEMX shall disseminate an updated bid and offer price together with the associated size to OPRA when the bid or offer price changes, the quantity decreases or the quantity increases by an amount greater than or equal to 3%. *Options 3, Section 26*