| $\frac{\text { Orders\# }}{\text { Non-Dir }}$ | Orders\% <br> Non-Di | $\frac{\text { Orders\# }}{\text { Direct }}$ | $\frac{\text { orders\% }}{\text { Direct }}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\% } \end{aligned}$ | $\begin{aligned} & \underline{\text { Limit }} \\ & \text { orders\# } \end{aligned}$ | $\begin{array}{r} \text { Limit } \\ \text { orders\% } \end{array}$ | $\begin{aligned} & \text { other } \\ & \text { orders\#\# } \end{aligned}$ | $\begin{aligned} & \text { other } \\ & \text { orders\% } \end{aligned}$ | venue | $\begin{aligned} & \frac{\text { Routed }}{\text { orders\# }} \\ & \text { or } \end{aligned}$ | $\begin{aligned} & \frac{\text { Routed }}{} \\ & \text { orders\% } \end{aligned}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\% } \end{aligned}$ | $\begin{aligned} & \text { Limit } \\ & \text { orders\#\# } \end{aligned}$ | $\begin{aligned} & \text { ordersit } \\ & \text { orders\% } \end{aligned}$ | $\begin{aligned} & \frac{\text { other }}{\text { orders\#\# }} \\ & \text { order } \end{aligned} \text { otherser }$ | $\begin{aligned} & \text { other } \\ & \text { orders\% } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | 100.0\% | - | 0.0\% | 5 | 23.8\% | 16 | 76.2\% | 0 | 0.0\% |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | NYSE | 7 | 81.9\% | 3 | 60.0\% | 14 | 87.5\% | ${ }^{\circ}$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | IB ATS | 2 | 9.5\% | 1 | 20.0\% | 1 | 6.2\% | ${ }^{\circ}$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | $\frac{\text { CSFBCROSS }}{\text { SATS }}$ | 1 | 4.8\% | ${ }_{1}$ | 0.0\% | 1 | 6.2\% | ${ }^{\circ}$ | ${ }^{0.0 \%}$ |


| $\frac{\text { Orders\# }}{\text { Non-Dir }}$ | $\frac{\text { Orders\% }}{\text { Non-Dir }}$ <br> Non-Di | $\frac{\text { Orders\# }}{\text { Direct }}$ | $\frac{\text { Orders\% }}{\text { Direct }}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\% } \end{aligned}$ | $\begin{aligned} & \text { Limit } \\ & \text { orders\# } \end{aligned}$ | $\begin{array}{r} \text { Limit } \\ \text { orders\% } \end{array}$ | $\begin{aligned} & \text { other } \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \text { other } \\ & \text { orders\% } \end{aligned}$ | Venue | $\begin{aligned} & \frac{\text { Routed }}{} \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \frac{\text { Routed }}{} \\ & \text { orders\% } \end{aligned}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\% } \end{aligned}$ | $\begin{aligned} & \text { Limit } \\ & \text { orders\#\# } \end{aligned}$ | $\begin{array}{r} \text { Limit } \\ \text { orders\% } \end{array}$ | $\begin{aligned} & \text { other } \\ & \text { orders\# } \end{aligned}$ | $\begin{aligned} & \text { other } \\ & \text { orders\% } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2619 | 100.0\% | - | 0.0\% | 151 | 5.8\% | 2465 | 94.1\% | 3 | 0.1\% |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | ISLAND | 1,987 | 75.9\% | 54 | 35.8\% | 1,932 | 78.4\% | 1 | 33.3\% |
|  |  |  |  |  |  |  |  |  |  | IB ATS | 269 | 10.3\% | 58 | 38.4\% | 211 | 8.6\% | ${ }^{\circ}$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | ARCA | 199 | 4.2\% | 8 | 5.3\% | 99 | 4.0\% | 2 | 66.7\% |
|  |  |  |  |  |  |  |  |  |  | DRCTEDGE | 54 | 2.1\% | 3 | 2.0\% | 51 | 2.1\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | UBSDARK | 45 | 1.7\% | 13 | 8.6\% | 32 | 1.3\% | $\bigcirc$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | BATS | 42 | 1.6\% | $\theta$ | 0.0\% | 42 | 1.7\% | $\bigcirc$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | EDGEA | 30 | 1.1\% | 6 | 4.0\% | 24 | 1.0\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | CITADELDP | 26 | 1.0\% | 4 | 2.6\% | 22 | 0.9\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  |  | 11 | 0.4\% | $\bigcirc$ | 0.0\% | 11 | 0.4\% | $\bigcirc$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | $\frac{\text { IEXMID }}{\text { BEX }}$ | 11 | ${ }^{0.4 \%}$ | $\stackrel{2}{6}$ | 1.3\% | 9 | - $0.4 \%$ | ${ }^{\circ}$ | ${ }_{0.0 \%}^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  |  | 8 | ${ }^{0.3 \%}$ | 0 | 0.0\% | 8 | 0.3\% | ${ }^{\circ}$ | ${ }^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | NITEECN | 7 | 0.3\% $0.2 \%$ | ${ }_{0}^{1}$ | $0.7 \%$ $0.0 \%$ | ${ }_{6}^{6}$ | ${ }^{0.2 \%} 0.2 \%$ | ${ }^{\circ}$ | ${ }_{0}^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | JANE | 5 | ${ }^{0.2 \%}$ | 1 | 0.7\% | 4 | $0.2 \%$ | ${ }^{\circ}$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | NYSE | 3 | ${ }^{0.1 \%}$ | 1 | 0.7\% | 2 | 0.1\% | - | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | $\frac{\text { IEX }}{\text { NTTEE }}$ | ${ }^{2}$ | ${ }^{0.1 \%}$ | ${ }^{\circ}$ | ${ }^{0.0 \%}$ | 2 | 0.1\% | ${ }^{\circ}$ | ${ }^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | NITEEXST | 1 | ${ }^{0.0 \%}$ | $\stackrel{\ominus}{0}$ | ${ }^{0.0 \%}$ | 1 | 0.0\% | $\stackrel{\ominus}{8}$ | ${ }_{0}^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | $\frac{\text { PSX }}{\text { AMEX }}$ | 1 | ${ }_{0.0 \%}^{0.0 \%}$ | 0 | ${ }_{0}^{0.0 \%}$ | 1 | 0.0\% | ${ }^{\circ}$ | ${ }^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | VIRTUDP | 1 | 0.0\% | ${ }^{\circ}$ | 0.0\% | 1 | 0.0\% | - | 0.0\% |


Listed Options

| $\frac{\text { Orders\# }}{\text { Non-Dir }}$ | $\frac{\text { Orders\% } \% \text { Non-Dir }}{\text { Non-D }}$ | $\frac{\text { Orders\# }}{\text { Direct }}$ | $\frac{\text { Orders\% }}{\text { Direct }}$ | $\begin{aligned} & \frac{\text { Market }}{\text { ordersi\# }} \end{aligned}$ | $\begin{aligned} & \begin{array}{l} \text { Market } \\ \text { orders\% } \end{array} \end{aligned}$ | $\underline{\text { Limit }} \underset{\text { orders\# }}{ }$ | $\underset{\underline{\text { Limit }}}{\underline{\text { Limers\% }}}$ | $\underline{\text { orther }}$ | $\begin{array}{r} \text { other } \\ \text { orders\% } \end{array}$ | Venue | $\begin{aligned} & \frac{\text { Routed }}{\text { orders }} \text { ( } \end{aligned}$ | $\begin{array}{r} \frac{\text { Routed }}{} \\ \text { orders } \end{array}$ | $\begin{aligned} & \frac{\text { Market }}{\text { ordersit }} \end{aligned}$ | $\begin{aligned} & \text { Market } \\ & \text { orders\% } \end{aligned}$ | $\begin{gathered} \frac{\text { Limit }}{\text { orders\#\# }} \end{gathered}$ | $\begin{aligned} & \underline{\text { Limit }} \\ & \text { orders\% } \end{aligned}$ | $\frac{\text { other }}{\text { orders\#\# }}$ | $\begin{array}{r} \text { ordher } \\ \text { orders } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 71 | 100.0\% | - | 0.0\% | 47 | 66.2\% | 24 | 33.8\% | $\theta$ | 0.0\% |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | PSE | 17 | 23.9\% | 6 | 12.8\% | 11 | 45.8\% | $\bigcirc$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | ISE | 12 | 16.9\% | 12 | 25.5\% | ${ }^{\circ}$ | 0.0\% | ${ }^{\circ}$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | $\frac{\text { EDGX }}{\text { CoE }}$ | 12 | 16.9\% | 12 | ${ }^{25.5 \%}$ | ${ }_{6}$ | - $0.0 \%$ | ${ }^{\circ}$ | ${ }_{0}^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | $\frac{\text { CBOE }}{\text { PEARL }}$ | 6 5 | 8.5\% $7.0 \%$ | $\theta$ | - ${ }^{\text {0.0\% }}$ | ${ }^{6}$ | 25.0\% | ${ }_{0}$ | ${ }_{0.0 \%}^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | PASDACOOM | 5 | 7.0\% | 5 | - ${ }_{\text {e. }}$ | ${ }_{5}$ | 20.8\% | $\stackrel{\ominus}{8}$ | ${ }^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | BATS | 4 | 5.6\% | 2 | 4.3\% | 2 | 8.3\% | 0 | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | MIAX | 3 | 4.2\% | 3 | 6.4\% | $\bigcirc$ | 0.0\% | ${ }^{\circ}$ | 0.0\% |
|  |  |  |  |  |  |  |  |  |  | $\frac{\mathrm{CBBE} 2}{\text { PHIX }}$ | 3 | 4.2\% | 3 | 6.4\% $4.3 \%$ | $\stackrel{\ominus}{\circ}$ | ${ }_{0}^{0.0 \%}$ | ${ }_{0}$ | ${ }_{0}^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | $\frac{\text { PHLX }}{\text { AMEX }}$ | ${ }_{1}^{2}$ | 2.8\% | ${ }_{1}^{2}$ | 4.3\% | ${ }^{\circ}$ | ${ }^{0.0 \%}$ | ${ }^{\circ}$ | ${ }^{0.0 \%}$ |
|  |  |  |  |  |  |  |  |  |  | $\frac{\text { A GEX }}{\text { GEMINI }}$ | 1 | 1.4\% | 1 | 2.1\% | ${ }^{\circ}$ | $0.0 \%$ | ${ }^{\circ}$ | ${ }^{0.0 \%}$ |

YSE MKT / NYSE Amex Options
YSE MKT / NYSE Amex Options
NYSE Arca
BASS Z-EXCHANGE
NASDAQ OMX BX
BATS $Y$ Exchang
NYSE Arca
BASS Z-EXCHANGE
NASDAQ OMX BX
BATS $Y$ Exchang
Chicago Board Options Exchange
Chicago Board Options Exchange 2
Citadels Darkpool for us Equities
Chicago Board Options Exchange
Chicago Board Options Exchange 2
Citadels Darkpool for us Equities
itadels Darkpool for US Equities
itadels Darkpool for US Equities
CSFB CrossFinder
BAST DIRECT EDGE
BATS
CSFB CrossFinder
BAST DIRECT EDGE
BATS
BATS EDEA Exchange
BATS EDGX Exchange
BATS EDEA Exchange
BATS EDGX Exchange
InE Gemini
Interactive Brokers Alternative Trading System
Investors Exchange
InE Gemini
Interactive Brokers Alternative Trading System
Investors Exchange
nvestors Exchange
nvestors Exchange
IEX Midpoint
International Securities Exchange
IEX Midpoint
International Securities Exchange
asdaq
asdaq
ane street Execution Services LLC
ane street Execution Services LLC
Miami Options Exchange
Miami Options Exchange
lasdaq Options Market
lasdaq Options Market
Knight Trading Exhaust Darkpoo
New York Stock Exchange
Knight Trading Exhaust Darkpoo
New York Stock Exchange
IAX PEARL Exchange
IAX PEARL Exchange
NASDAQ OMX PHLX
NASDAQ OMX PHLX
YSE Arca Options
lasdaq OMX PSX
YSE Arca Options
lasdaq OMX PSX
UBS Dark Pool
Virtu Financial
UBS Dark Pool
Virtu Financial
irtu Financial Capital Markets LLC
irtu Financial Capital Markets LLC

| Orders\# <br> Non-Dir | The number of total orders from the provider that were <br> non-directed orders. |
| :--- | :--- |
| Orders\% The percentage of total orders from the provider that were <br> non-directed orders. <br> Non-Dir  | The number of total orders from the provider that were <br> directed orders. |
| Orders\# <br> Direct |  |

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orders\% $\begin{aligned} & \text { The percentage of total non-directed customer orders that } \\ & \text { weree 1inimit orders. }\end{aligned}$
The number of total non-directed customer orders that were
special handling orders and any orders that must be executed
on a particular tick or bid. The percentage of total non-directed customer orders that
were special handling orders and any orders that must be were special handling orders and any
List of the ten venues to which the largest number of total
non-directed orders were routed for execution and of any venue to which more than five percent or more of
non-directed orders were routed for execution
The number of total non-directed orders routed to the venue

The percentage of total non-directed orders routed to the

The number of total non-directed market orders routed to the

The percentage of total non-directed market orders routed to
the venue The number of total non-directed limit orders routed to the
venue

The percentage of total non-directed limit orders routed to
the venue The number of total non-directed other orders routed to the
venue. Other orders include special handling orders and any
orders that must be executed on a particular tick or bid. orders that must be executed on a particular tick or bid. The percentage of total non-directed other orders routed to
the venue. Other orders include special handling orders and any orders that must be executed on a particular tick or any or

