Q2 2023 Quarterly Business Update

AUG 8, 2023
Disclaimer and cautionary note

Forward-looking statements
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Use of non-GAAP financial measures

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We use “Order Book” as a metric to measure performance against anticipated achievement of planned key milestones of our business. Order Book is defined as the forward-looking cumulative billings estimate of Luminar’s hardware and software products over the lifetime of given vehicle production programs which Luminar’s technology is expected to be integrated into or provided for, based primarily on projected / actual contractual pricing terms and our good faith estimates of “take rate” of Luminar’s technology on vehicles. “Take rates” are the anticipated percentage of new vehicles to be equipped with Luminar’s technology based on a combination of the key performance indicators (KPIs) that the customer has tied to deploying Luminar’s product offering, deciding to add Luminar’s products in our Order Book when (a) we have obtained a written agreement, (e.g., non-binding expression of interest arrangement or an agreement for non-recurring engineering project) or public announcement with a major industry player, and (b) we expect to ultimately be awarded a significant commercial program. We believe Order Book provides useful information to investors as a supplemental performance metric as our products are currently in a pre-production stage and therefore there are currently no billings or revenues from commercial grade product sales. OEMs customarily place non-cancelable purchase orders with their automotive component suppliers only shortly before or during production. Consequently, we use Order Book to inform investors about the progress of expected adoption of our technologies by OEMs because there is, in our view, no other better metric available at our stage. The Order Book estimate may be impacted by various factors, as described in “Risk Factors” in Item 1A of Part I of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 and subsequent filings with the Securities and Exchange Commission, including, but not limited to the following: (i) None of our customers make contractual commitments to use our LiDAR sensors and software until all test and validation activities have been completed; they have finalized plans for integrating our systems, have a positive expectation of the market demand for our features, and unrelated to us, have determined that their vehicle is ready for market and there is appropriate consumer demand. Consequently, there is no assurance or guarantee that any of our customers, including any programs which we included in our Order Book estimates will ever complete such testing and validation or enter into a definitive volume production agreement with us or that we will receive any billings or revenues forecasted in connection with such programs; (ii) The development cycles of our products with new customers vary widely depending on the application, market customer and the complexity of the product. In the automotive market, for example, this development cycle can be as long as seven or more years. Variability in development cycles make it difficult to reliably estimate the pricing, volume or timing of purchases of our products by our customers; (iii) Customers cancel or postpone implementation of our technology; (iv) We may not be able to integrate our technology successfully into a larger system with other sensing modalities; and (v) The product or vehicle model that is expected to include our LiDAR products may be unsuccessful, including for reasons unrelated to our technology. These risks and uncertainties may cause our future actual sales to be materially different than that implied by the Order Book metric.
What’s inside

Business update / Recent highlights

2023: Key milestones and guidance

Q2’23: Summary financial results

Appendix
Q2’23 Business update / Recent highlights

1. **On track to meet or beat all business and financial milestones for 2023**
   - Optimization and validation of high volume, automated production facility underway; On track for SOP readiness by YE’23
   - Iris+ undergoing validation and testing from lead OEM and on track to enter C phase by YE’23;
     On track to complete software deliverables for OEM SOPs and develop next-gen LiDAR prototype by YE’23
   - On track to add at least $1B to Order Book by YE’23

2. **Strong execution with existing and new OEM partners**
   - Polestar 3 with Luminar LiDAR now available to order on polestar.com
   - Nissan showcasing intersection collision avoidance technology enabled by Luminar LiDAR
   - Mobileye powering autonomous vehicle program for a major OEM; Luminar is LiDAR partner for MobileyeDrive™
   - Luminar team consistently executing on Volvo, Mercedes, and other OEM production programs
   - Signed agreements with multiple new customers to upgrade legacy LiDAR to Luminar for next-gen systems

3. **Accelerating software/Al and semiconductors with new deals and deliverables**
   - Partnership with Scale AI delivering on Luminar’s machine learning-based AI Engine
   - Plus selects Luminar as its exclusive long-range LiDAR for PlusDrive and to collaborate with Luminar on providing
     AI-based assisted driving software to commercial trucking OEMs
   - Luminar awarded first development contract for mapping software with major OEM
   - Luminar Semiconductor awarded multiple new external contracts

4. **Q2 Revenue and EPS exceed guidance; Affirming FY'23 financial guidance**

*Please refer to slide 16 in Appendix for Footnotes 1 and 2.*
Execution supporting customers & partners

**Polestar 3**
available to order with Luminar LiDAR

**Nissan**
showcases intersection collision avoidance

**Mobileye**
new OEM AV program; Luminar on MobileyeDrive™

**Plus**
announces partnership for LiDAR & software
Nissan unveiling additional driver assistance features

Intersection collision avoidance is latest addition to Nissan’s in-development driver assistance technology, in partnership with Luminar.

Nissan’s stated target is to introduce its next-gen driver assistance technology on select new models by mid-2020s and on virtually every new model by 2030:

“We are on course to develop collision-avoidance technology utilizing next-generation LIDAR technology by the mid-2020s.”

Takao Asami
Senior VP, Head of Research & Advanced Engineering, Nissan Motors
MobileyeDrive™ with new OEM AV program

Mobileye selected Luminar as its long-range LiDAR partner for the MobileyeDrive™ system

- Development vehicle with Luminar
- MobileyeDrive™ platform with Luminar
- MobileyeDrive™ and OEM with Luminar

2020–
Luminar Hydra in Mobileye’s first generation autonomous vehicle development

2021–
Public display of MobileyeDrive™ fully integrated self-driving system with Luminar Iris

Now
Major OEM partnered with Mobileye for autonomous vehicles; Integrated with Luminar Iris

Photo Credit: Mobileye
Luminar and Plus partner for LiDAR and AI-based assisted driving software

Luminar is now the exclusive provider of long-range LiDAR for PlusDrive, Plus’s factory-installed assisted driving system for commercial trucks.

Plus will collaborate with Luminar to provide AI-based assisted driving software to commercial trucking OEMs.

Plus and Luminar will also aim to collaborate on Luminar’s commercial vehicle insurance program, HD mapping, & Blade sensor integration.
NHTSA poised to mandate advanced AEB

Regulatory tailwinds for Luminar

- NHTSA poised to mandate AEB at higher speed & Pedestrian AEB at night, while also discouraging false positives, pushing OEMs to adopt LiDAR

- Specifically, NHTSA published draft regulation requiring AEB to work at higher speeds up to 100 kph (62 mph) and PAEB to work at night up to 60 kph (37 mph)

- Relatedly, NHTSA continues to investigate poor performance, especially false braking, in existing camera/radar-based AEB in light vehicles and heavy trucks
Executing on Luminar AI Engine

Partnership with Scale meeting deliverables

Luminar AI Engine

Input

- Luminar Data
- 1st & 3rd Party Point Cloud Data of Luminar LiDAR

AI

- Ground Truth Labeled Training Data
- Neural Networks
  - Foundational Model
  - Perception & Prediction Tasks
- AI Acceleration and Inference

Output

- Proactive Safety™ & Highway Autonomy
- Mapping & Localization
- Perception & Detection
- 2D Driveable Space
- 3D Road Points
- 3D Lane Points
- 3D Barrier Points
- 3D Object Points
- 3D Bounding Boxes

Training Infra

- Data Engine
- Distributed Training

Please refer slide 16 in Appendix for Footnote 2.
## Luminar Semiconductor Inc: New ASICs & external wins in Q2/Q3

*Internal semiconductor powerhouse delivers next-gen lasers, detectors, & ASICs for enhanced performance & lower cost*

### Laser Chip
- New 3\(^{rd}\) gen laser chip (InP)
- New 3\(^{rd}\) gen laser driver chip (Si)
- First time integrated into laser module & being validated with Iris

### Receiver Chip
- New 5\(^{th}\) gen receiver chip (InGaAs)
- Validated & integrated into Iris

### Processor Chip
- 5\(^{th}\) gen signal processing chip (Si) now developed
- 4th gen validated & integrated into Iris

### Selected Recent External Business Wins
- **Received NASA Tipping Point Award** for development of breakthrough laser technology
- **Awarded Contract** Multi-year supply agreement for Luminar photodetectors from a leader in fiber optic solutions
- **First Volume Order** For new Luminar laser technology on AI/GPU system for optical communication
On track to achieve key 2023 milestones and financial guidance

**Business Milestones**

**Industrialization / Scale**
Target: Bring high-volume, automated manufacturing MX facility online; Meet automaker SOP requirements.

**Execute Product & Technology Roadmap**
Target: Enter Iris+ C phase; Build next-gen LiDAR prototype; Complete software requirements for Volvo, Mercedes SOPs.
Status: On track. Iris+ validation underway in Q2. Successfully delivering software to Volvo and Mercedes.

**Grow the Business**
Target: Grow Order Book by at least $1 Billion.
Status: On track. Signing deals across hardware, software/AI, and semiconductors with new and existing customers.

**Financial Guidance (unchanged)**

- **2023 Revenue**
  \[ \geq 100\% \text{ growth vs FY'22} \]

- **Gross Margin (Non-GAAP)**
  \[ \text{Positive by Q4'23} \]

- **Cash / Liquidity**
  \[ \geq 300\text{M at year-end 2023} \]

Please refer to slide 16 in Appendix for Footnotes 1 and 2.
Q2’23 financial results & 2H’23 commentary

**Q2’23 revenue: $16.2M**
- Q2 revenue up 63% YoY; slightly above mid-point of guidance range

**Q2’23 GAAP gross loss: $(18.3)M; Non-GAAP: $(16.2)M**

**Q2’23 free cash flow (FCF)³: $(78.5)M**
- Includes ~$24M of high-volume launch related⁷ costs; expected to significantly decrease by Q4 as we near SOP readiness at the MX facility
- Q2 FCF further negatively impacted by ~$13M due to working capital investment relative to Q1

**Cash⁴ & liquidity position: $365.8M**
- Excludes additional $10M TPK investment from option exercise

**Q3’23 guidance**
- Revenue: $18M to $21M; Non-GAAP EPS⁵: $(0.18) to $(0.22)

**Q4’23 Non-GAAP gross margin target**
- On track to non-GAAP gross margin positive in Q4
- Driven primarily by reduction in high-volume launch related⁷ COGS

**Q4’23 free cash flow spend target**
- On track to ~50% improvement of Q4 free cash flow spend compared to Q1/Q2 (non-GAAP)
- Driven primarily by reduction in cash spend from launch-related⁷ expenses, capex & working capital

**Strong cash position & runway to profitability**
- Q4’23 target exit rate FCF & YE’23 cash/liquidity target of ~$300M implies sufficient runway to reach profitability

Please refer to slide 16 in Appendix for Footnotes 3, 4, 5 and 7.
Footnotes

1 Please refer to Order Book definition outlined in Disclaimer & cautionary note on slide 3

2 Various Luminar software capabilities are still in development and have not achieved ‘technological feasibility’ or ‘production ready’ status

3 Defined as operating cash flow less capex

4 Includes cash, cash equivalents and marketable securities

5 Please refer to Reconciliation of GAAP to Non-GAAP forecasts slide for a reconciliation of Non-GAAP to GAAP EPS guidance

6 Excludes Vendor stock-in-lieu of cash program - purchases and advances for capital projects and equipment of $2.9M and $10.3M in Q2’23 and Q2’22, respectively

7 Luminar is incurring items such as charges for contractors to support testing / validation of manufacturing processes and product quality, rental of certain equipment to support manufacturing operations pending stabilization of utilities, under-absorption of fixed costs due to low volumes being produced, write-offs and claims from sub-contractors related to inventory obsoleted due to product design changes etc. These charges are collectively being referred to as “launch costs”. These charges are expected to decline as we successfully industrialize our products
Q2’23 selected financials

(In millions)

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<tr>
<th></th>
<th>June 30, 2023</th>
<th>Dec 31, 2022</th>
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<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>$89.1</td>
<td>$69.6</td>
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<td>Marketable securities</td>
<td>$276.7</td>
<td>$419.3</td>
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<tr>
<td>Cash, cash equivalents &amp; marketable securities</td>
<td>$365.8</td>
<td>$488.9</td>
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<td>Total Assets</td>
<td>$599.8</td>
<td>$687.3</td>
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GAAP

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<th>Three months ended June 30,</th>
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<tr>
<td></td>
<td>2023</td>
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<tr>
<td>Revenue</td>
<td>$16.2</td>
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<td>Cost of sales</td>
<td>$34.5</td>
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<td>Gross loss</td>
<td>$(18.3)</td>
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<td>Operating expenses</td>
<td>$125.6</td>
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<td></td>
<td>2023</td>
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<tr>
<td>Free cash flow(^3)</td>
<td>$(78.5)</td>
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Please refer to slide 16 in Appendix for Footnote 3.
Reconciliation of GAAP to non-GAAP actuals
(In millions, except per share amounts)

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<td>2023</td>
<td>2022</td>
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<td>GAAP Cost of sales</td>
<td>$34.5</td>
<td>$28.1</td>
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<td>Stock-based compensation</td>
<td>$(1.9)</td>
<td>$(7.0)</td>
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<td>Amortization of intangibles</td>
<td>$(0.2)</td>
<td>$(0.3)</td>
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<td>Non-GAAP Cost of sales</td>
<td>$32.4</td>
<td>$20.8</td>
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<td>Non-GAAP Gross loss</td>
<td>$(16.2)</td>
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<tr>
<td>Operating cash flow</td>
<td>$(73.3)</td>
<td>$(52.4)</td>
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<td>Capex (Incl. advances)</td>
<td>$(5.2)</td>
<td>$(4.2)</td>
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<td>Free cash flow</td>
<td>$(78.5)</td>
<td>$(56.5)</td>
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<tr>
<td></td>
<td>2023</td>
<td>2022</td>
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<td>GAAP EPS</td>
<td>$(0.37)</td>
<td>$(0.27)</td>
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<td>GAAP Net Loss</td>
<td>$(141.8)</td>
<td>$(95.2)</td>
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<td>Stock based compensation</td>
<td>$59.2</td>
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<td>Amortization of intangibles</td>
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<td>Legal, regulatory filing and M&amp;A transaction expenses</td>
<td>$0.0</td>
<td>$2.5</td>
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<td>Warrant fair value change</td>
<td>$(0.0)</td>
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<td>Non-GAAP Net Loss</td>
<td>$(81.5)</td>
<td>$(65.0)</td>
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<td>Weighted avg. shares outstanding</td>
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<td>Non-GAAP EPS</td>
<td>$(0.21)</td>
<td>$(0.18)</td>
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Please refer to slide 16 in Appendix for Footnote 6.
Reconciliation of GAAP to non-GAAP forecasts
(In per share amounts)

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<td>GAAP EPS</td>
<td>$(0.32) - $(0.40)</td>
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<td>Stock based compensation</td>
<td>~$0.13-$0.17</td>
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<td>Amortization of intangibles &amp; other items</td>
<td>~$0.01</td>
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<tr>
<td>Non-GAAP EPS</td>
<td>$(0.18) - $(0.22)</td>
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