

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 09, 2024

DIODES INCORPORATED

(Exact name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

002-25577
(Commission File Number)

95-2039518
(IRS Employer
Identification No.)

4949 Hedgcoxe Road, Suite 200
Plano, Texas
(Address of Principal Executive Offices)

75024
(Zip Code)

Registrant's Telephone Number, Including Area Code: 972 987-3900

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, Par Value \$0.66 2/3	DIOD	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 2.02 Results of Operations and Financial Condition.

On May 9, 2024, Gary Yu, President of Diodes Incorporated, (the “Company”), as well as Brett R. Whitmire, Chief Financial Officer of the Company, Emily Yang, Senior Vice President, Worldwide Sales and Marketing of the Company and Gurmeet Dhaliwal, Director of Investor Relations for the Company, participated in a conference call to discuss the Company’s first quarter 2024 financial results. A recording of the conference call has been posted on the Company’s website at www.diodes.com, and copy of a transcript of the conference call is furnished as Exhibit 99.1 to this Report. Information contained in or accessible through the Company’s website shall not be deemed to be incorporated by reference into this Report.

In the earnings conference call, the Company utilizes financial measures and terms not calculated in accordance with generally accepted accounting principles in the United States (“GAAP”) in order to provide investors with an alternative method for assessing the Company’s operating results in a manner that enables investors to more thoroughly evaluate its current performance as compared to past performance. The Company also believes these non-GAAP measures provide investors with a more informed baseline for modeling the Company’s future financial performance. Management uses these non-GAAP measures for the same purpose. The Company believes that investors should have access to the same set of tools that management uses in analyzing results. These non-GAAP measures should be considered in addition to results prepared in accordance with GAAP, but should not be considered a substitute for or superior to GAAP results and may differ from similar measures used by other companies. For a description, and reconciliation with GAAP, of these non-GAAP measures see the Company’s press release dated May 9, 2024, announcing the Company’s first quarter 2024 financial results, a copy of which was furnished as Exhibit 99.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 9, 2024. The information furnished in this Item 2.02, including the exhibit incorporated by reference, will not be treated as “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section. This information will not be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended (the “Securities Act”), or into another filing under the Exchange Act, unless that filing expressly refers to specific information in this Report.

Item 7.01 Regulation FD Disclosure.

The transcript of the earnings conference call furnished as Exhibit 99.1 also provides an update on the Company’s business outlook, that is intended to be within the safe harbor provided by the Private Securities Litigation Reform Act of 1995 (the “Act”) as comprising forward looking statements within the meaning of the Act.

The information furnished in this Item 7.01, including the exhibit incorporated by reference, will not be treated as “filed” for the purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section. This information will not be deemed incorporated by reference into any filing under the Securities Act, or into another filing under the Exchange Act, unless that filing expressly refers to specific information in this Report.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
99.1	Transcript of earnings conference call held on May 9, 2024.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

DIODES INCORPORATED

Date: May 13, 2024

By: /s/Brett R. Whitmire

Brett R. Whitmire
Chief Financial Officer

REFINITIV STREETEVENTS

EDITED TRANSCRIPT

DIOD.OQ - Q1 2024 Diodes Inc Earnings Call

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CORPORATE PARTICIPANTS

Brett R. Whitmire *Diodes Incorporated - CFO*

Emily Yang *Diodes Incorporated - SVP of Worldwide Sales & Marketing*

Gary Yu *Diodes Incorporated - President & Director*

Leanne K. Sievers *Shelton Group - President*

CONFERENCE CALL PARTICIPANTS

David Neil Williams *The Benchmark Company, LLC, Research Division - Senior Equity Analyst*

Gary Wade Mobley *Wells Fargo Securities, LLC, Research Division - Senior Analyst*

Tristan Gerra *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

William Stein *Truist Securities, Inc., Research Division - MD*

PRESENTATION

Operator

Good afternoon, and welcome to Diodes Incorporated's First Quarter 2024 Financial Results Conference Call. (Operator Instructions) As a reminder, this conference call is being recorded today, Thursday, May 9, 2024.

I would now like to turn the call over to Leanne Sievers of Shelton Group Investor Relations. Leanne, please go ahead.

Leanne K. Sievers - Shelton Group - President

Good afternoon, and welcome to Diodes First Quarter Fiscal 2024 Financial Results Conference Call. I'm Leanne Sievers, President of Shelton Group, Diodes' Investor Relations firm. Joining us today are Diodes' President, Gary Yu; Chief Financial Officer, Brett Whitmire; Senior Vice President of Worldwide Sales & Marketing, Emily Yang; and Director of Investor Relations for Gurmeet Dhaliwal.

I'd like to remind our listeners that the results announced today are preliminary, as they are subject to the company finalizing its closing procedures and customary quarterly review by the company's independent registered public accounting firm. As such, these results are unaudited and subject to revision until the company files its Form 10-Q for its fiscal quarter ending March 31, 2024.

In addition, management's prepared remarks contain forward-looking statements, which are subject to risks and uncertainties, and management may make additional forward-looking statements in response to your questions. Therefore, the company claims the protection of the safe harbor for forward-looking statements that is contained in the Private Securities Litigation Reform act of 1995. Actual results may differ from those discussed today, and therefore, we refer you to a more detailed discussion of the risks and uncertainties in the company's filings with the Securities and Exchange Commission, including Forms 10-K and 10-Q.

In addition, any projections as to the company's future performance represent management's estimates as of today, May 9, 2024. Diode assumes no obligation to update these projections in the future, as market conditions may or may not change, except to the extent required by applicable law.

Additionally, the company's press release and management statements during this conference call will include discussions of certain measures and financial information in GAAP and non-GAAP terms. Included in the company's press release are definitions and reconciliations of GAAP to non-GAAP items, which provide additional details. Also, throughout the company's press release and management statements during this conference call, we refer to net income attributable to common stockholders as GAAP net income.

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For those of you unable to listen to the entire call at this time, a recording will be available via webcast for 90 days in the Investor Relations section of Diodes website at www.diodes.com.

And now, I'll turn the call over to Diodes' President, Gary Yu. Gary, please go ahead.

Gary Yu - Diodes Incorporated - President & Director

As reported earlier today, first quarter revenue reflected a slower-than-expected recovery in the consumer, computing and the communication market, coupled with the typical first quarter seasonality due to the Chinese New Year holiday. However, late in the quarter, we began to see some signs of demand improvement with distributor inventory levels starting to stabilize, supporting our belief that the first quarter should be the low point and are guiding for a return to seasonal growth in the second quarter.

In the automotive and industrial end markets, first quarter combined product revenue remained above our target model of 40%, but continues to be affected by inventory adjustment and a softness in certain areas. More broadly, the slower overall demand environment in the quarter contributed to reduced loading at our manufacturing facilities, both internal production as well as from our manufacturing service agreements, temporarily impacting gross margins.

We expect gross margin to resume toward our target of 40% as we increase our factory loading by qualifying more products combined with increasing revenue growth from our higher-margin automotive and industrial market, consistent with our historical performance and our long-term growth strategy.

In summary, with early evidence of recent pricing pressures subsiding, Diodes is well positioned with the size and the scale to support a return to growth as global demand and distributor inventory improves across our end markets. We remain focused on operating our manufacturing facilities at a high level of efficiency as demonstrated by the steps the company has taken over the past several quarters to further develop our process technology and capabilities while lowering manufacturing costs across our operations.

With that, let me now turn the call over to Brett to discuss our first quarter financial results as well as our second quarter guidance in more detail.

Brett R. Whitmire - Diodes Incorporated - CFO

Thanks, Gary, and good afternoon, everyone. Revenue for the first quarter of 2024 was \$302 million compared to \$322.7 million in the fourth quarter of 2023 and \$467.2 million in the first quarter 2023.

Gross profit for the first quarter was \$99.6 million or 33% of revenue, which reflects the reduced loading at our manufacturing facilities due to the lower revenue. This compares to \$112.5 million or 34.9% of revenue in the prior quarter and \$194.5 million or 41.6% of revenue in the prior year quarter.

GAAP operating expenses for the first quarter were \$86.6 million or 28.7% of revenue, and on a non-GAAP basis, were \$87.6 million or 29% of revenue, which excludes \$3.8 million of amortization of acquisition-related intangible asset expenses. This compares to GAAP operating expenses in the prior quarter of \$91.8 million or 28.4% of revenue, and in the first quarter 2023 of \$108 million or 23.1% of revenue. Non-GAAP operating expenses in the prior quarter were \$89 million or 27.6% of revenue.

Total other income amounted to approximately \$5.9 million for the quarter, consisting of \$4.6 million of interest income, \$1 million of foreign currency gains, \$0.4 million of other income, \$0.4 million of unrealized gain on investments, and a \$0.5 million in interest expense.

Income before taxes and non-controlling interest in the first quarter 2024 was \$18.8 million compared to \$27.9 million in the previous quarter and \$88.6 million in the prior year quarter. Turning to income taxes, our effective income tax rate for the first quarter was approximately 18.8%.

GAAP net income for the first quarter was \$14 million or \$0.30 per diluted share compared to \$25.3 million or \$0.55 per diluted share last quarter and \$71.2 million or \$1.54 per diluted share in the prior year quarter. The share count used to compute GAAP diluted EPS in the first quarter was 46.3 million shares.

Non-GAAP adjusted net income in the first quarter was \$13 million or \$0.28 per diluted share, which excluded net of tax, \$3.1 million of acquisition-related intangible asset costs, a \$0.3 million non-cash mark-to-market investment value adjustment, and a \$3.8 million insurance recovery for a manufacturing facility. This compares to \$23.4 million or \$0.51 per diluted share in the prior quarter and \$73.4 million or \$1.59 per diluted share in the first quarter 2023.

Excluding non-cash share-based compensation expense of \$4 million, net of tax, for the first quarter, both GAAP earnings per share and non-GAAP adjusted EPS would have increased by \$0.09 per diluted share, respectively. EBITDA for the first quarter was \$48.3 million or 16% of revenue, compared to \$58.4 million or 18.1% of revenue in the prior quarter and \$121.8 million or 26.1% of revenue in the first quarter 2023.

We have included in our earnings release a reconciliation of GAAP net income to non-GAAP adjusted net income and GAAP net income to EBITDA, which provides additional details.

Cash flow used in operations was \$31.1 million for the first quarter. Free cash flow was a negative \$51.5 million, which included \$20.4 million for capital expenditures. Net cash flow was a negative \$47.9 million.

Turning to the balance sheet. At the end of the first quarter, cash, cash equivalents, restricted cash plus short-term investments totaled approximately \$280 million. Working capital was \$824 million and total debt, including long term and short term, was approximately \$70 million.

In terms of inventory, at the end of the first quarter, total inventory days were approximately 184 as compared to 160 last quarter. Finished goods inventory days were 67 compared to 49 last quarter. Total inventory dollars increased \$39.6 million from the prior quarter to \$429.4 million. Total inventory in the quarter consisted of \$40.2 million increase in finished goods, a \$1.6 million increase in work-in-process, and a \$2.1 million decrease in raw materials.

Capital expenditures, on a cash-basis, were \$20.4 million for the first quarter or 6.7% of revenue and within our target range of 5% to 9%.

Now turning to our outlook. For the second quarter 2024, we expect revenue to be approximately \$316 million, plus or minus 3%, representing a 4.6% sequential increase at the midpoint and reflecting a return to typical seasonal growth. GAAP gross margin is expected to be 33.5%, plus or minus 1%, reflecting the lower mix of revenue from the automotive and industrial markets as the 3C markets recover.

Non-GAAP operating expenses, which are GAAP operating expenses adjusted for amortization of acquisition-related intangible assets, are expected to be approximately 28.5% of revenue, plus or minus 1%. We expect net interest income to be approximately \$3 million.

Our income tax rate is expected to be 18.5%, plus or minus 3%, and shares used to calculate EPS for the second quarter are anticipated to be approximately 46.5 million.

Not included in these non-GAAP estimates is amortization of \$3.1 million after tax for previous acquisitions. With that said, I will now turn the call over to Emily Yang.

Emily Yang - *Diodes Incorporated - SVP of Worldwide Sales & Marketing*

Thank you, Brett, and good afternoon. Revenue in the first quarter was down 6% sequentially and slightly below the midpoint of our guidance due to a slower recovery in the 3C market than originally expected. Our first quarter global POS decreased slightly due to the Chinese New Year in Asia, but has recovered since March and continued to grow into the second quarter. This also drove channel inventory value to decrease even though remaining above our defined normal range of 11 to 14 weeks.

As Gary mentioned, we are beginning to see improvement in demand going into the second quarter with stronger book-to-bill ratio. In fact, this is the first time we've seen a positive book-to-bill ratio since mid-2022, further supporting our expectation of the first quarter being the low point in the cycle.

Assuming no major macroeconomic change in the market, given the stronger backlog and better book-to-bill ratio and healthier inventory level in the 3C segment, we feel optimistic about second quarter revenue improvement and stronger second half of the year than the first half.

Looking at the global sales in the first quarter. Asia represented 75% of revenue; Europe, 16%; and North America, 9%. In terms of our end markets, industrial was 23% of Diodes' product revenue; Automotive, 18%; Computing, 25%; Consumer 20%; and Communication 14% of product revenue. Our automotive and industrial end markets combined totaled 41% of the first quarter product revenue, representing the eighth consecutive quarter above our target model of 40%.

Now, let me review the end markets in greater detail. Starting with Automotive market, revenue was 18% of our total product revenue, which was flat to last quarter on a percentage basis. The slowdown in the demand, along with inventory rebalancing continued in the first quarter, and we expect this would continue into the second quarter. But our demand creation momentum continued with expanding design ins and design wins across multiple applications.

Our focus on the connected driving, comfort, style, safety and electrification continued as we introduced 44 new automotive products in the first quarter with a focus on applications such as EV protection, high speed and high bandwidth automotive Ethernet network protection, battery management systems, Wi-Fi telecommunication, and infotainment. We're also expanding our solutions within electric and hybrid electric vehicle subsystems, including battery chargers, onboard chargers, high-efficiency DC/DC converters, motor drivers and traction inverters.

Additionally, the adoption of Diodes' USB Type C ReDrivers, DisplayPort Alternative active crossbar Muxes and MIPI switches have increased significantly in the rear-seat entertainment, smart cockpits, ADAS and camera monitor systems. And our PCI Express Gen 6 Clock generators, crystal oscillators and TVS products are being designed into various ADAS platforms. We also continue to see momentum and design win for rectifiers, switch diodes and DC-DC products in infotainment, ADAS and telematics.

Also within automotive, our linear LED drivers won designs in headlights and EV high-beam/low-beam applications, while our TVS products are being designed-in for power line protection in the headlights, steering control modules and daylight running lights. Our Hall effect switches and latches continue to gain design wins and revenue growth momentum for cooling water pumps and window lift controls.

In the industrial market, first quarter revenue represented 23% of the total product revenue, which was also flat to the last quarter but down in terms of revenue as the inventory rebalancing continues during the quarter, and this may last into the second half of the year.

Despite the slowdown, we continue to focus on expanding our design pipeline and application opportunities. Specifically during the quarter, our LDOs continue to gain traction in fans, power tools and E-meter applications while rectifiers, switch diodes and Silicon Carbide power MOSFETs are being used in the power tools, power storage, solar inverters and high-efficiency LED backlighting. We also continue to win designs with our Piezo driver portfolio in smoke detectors and alarm applications.

Also in the industrial market, we are seeing adoption of HDMI Muxes and DisplayPort HDMI ReDrivers and LED drivers in the commercial display, highway signs and conference TV applications. We're also seeing traction for silicon carbide products in HVAC, energy storage system, power factor correction, and server power supplies. Additionally, our Contact Image Sensor had new design wins in automated optical inspection applications.

In the computer market, like I mentioned earlier, inventory is healthy and we expect to see a gradual improvement in revenue, especially in the AI server area, with signs of stronger backlog in Asia. From a design momentum point of view, our signal integrity and connectivity products continue with increased adoption of HDMI, USB-C, MIPI, EDP ReDrivers and switches along with USB-C power switches and TVS in applications, including workstation, gaming, notebook, desktop, docking stations and tablets.

We also saw new design-ins and production ramping for PCI Express Gen 3 package switch, PCI Express clock buffers, TVS, rectifier, and switches diodes in server, artificial intelligence servers and data center applications. We also secured design wins and revenue growth for hall-effect latched switches in DC fans, LED drivers in keyboard lighting and contact image sensors for multifunction printers.

Turning to communication market. On the enterprise side, due to slower-than-expected demand, the inventory depletion rate has been slow, and we expect this may last into the second half before returning to a healthy levels. On the smartphone side, even though inventory is clean, the recovery will likely to be gradual over the coming quarters.

For the design side, our camera fresh LED driver rectifiers, clock buffers and LDOs with designing and ramping up in the smartphone and 5G equipment, while TVS products are being designed into smartphone battery protection applications. We have several design wins for crystal oscillators in optical transceiver modules and Hall-Effect switches and true wireless stereo technology for earbuds.

And lastly, in the consumer market, similar to the PC market, inventory is relatively clean. Even though the overall demand is not as strong as we expected, we still expect some of the new designs will start to ramp in Q2 and peak in Q3. Our Buck converters, LED drivers and MOSFETs are being designed into several smart home IoT and virtual reality projects, while our LDO saw new design wins in smart watches. Also our rectifiers, switch diodes and low switches and buck converters were designed in and ramping up during the quarter in televisions and monitors. We are also seeing traction for USB Type C DP retimers and USB Type-C active cable and docking station applications.

In summary, as indicated by our second quarter guidance, we are expecting a return to seasonal growth based on the demand improvement and channel inventory stabilization that we began to see, specifically in the 3C markets. As the demand improve further across all our end markets, we expect gross margin to benefit from increased loading of our internal facilities as we qualify more products while also benefiting from our product mix improvement initiatives by expanding revenue contribution from our higher-margin automotive and industrial solutions as those markets recover and resume growth.

With that, we now open the floor to questions, Operator?

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) And our first question today will come from David Williams with Loop Capital.

David Neil Williams - *The Benchmark Company, LLC, Research Division - Senior Equity Analyst*

It's actually David from Benchmark. So, I appreciate you taking the question here. I guess one of the things I wanted to ask about is just on the gross margin. I know last quarter, 34% was kind of what we thought it would be, and thought that'd be the bottom. And it felt like there was a healthy level of utilization charges that were baked into that, but it seems like we saw a little bit more pressure. So I guess if you were looking at the puts and takes there on the margin, how much of that was utilization versus pricing in the quarter?

Emily Yang - *Diodes Incorporated - SVP of Worldwide Sales & Marketing*

Yes. So, Dave, this is Emily. I think in general, we've seen the pricing stabilize, right? So, majority of the contribution of the challenge is really from the underloading pressure, both due to the decrease of revenue, so it naturally decreased some of the loadings to our own factory as well as manufacturing service agreement.

David Neil Williams - *The Benchmark Company, LLC, Research Division - Senior Equity Analyst*

Okay. But you sound you're fairly confident in that returning to that 40% kind of target over time. I guess, can you talk about how quickly that can return and how much utilization will help you in the next quarter as we kind of think about that revenue beginning to grow.

Emily Yang - *Diodes Incorporated - SVP of Worldwide Sales & Marketing*

Yes. So I think a couple of factors driving the margin improvements, right? So, obviously, driving the underloading utilization is one of the key initiatives. As the market start returning, revenue will improve, that would naturally improve some of the loading. We've also been talking about aggressively porting and qualifying some products into our own factory to really improve the overall loading, supporting our hybrid manufacturing model, right? So that is definitely ongoing, on track.

And so, we believe with all of this going on, right, it definitely would naturally improve the underloading situation. At the same time, product mix improvement has been a key initiative, right? There's a couple of ways to look at it. We talk about new product introduction. In 2023 alone, we introduced a lot of automotive customer -- automotive products, and we want to continue to expand our portfolio, that would naturally continue to help us to support our market expansion, right? And also, content expansion.

We also talk about analog and power discrete. That will continue to be the key focus. Of course, a lot of the new product also concentrated focused in this area. We also talk about Pericom Semiconductor products, that will continue to be a key focus for us. That's kind of part of the analog plus the power discrete focus.

From a different area, we talk about auto industrial focus, right? So we -- I also talk about it. It's 41% by the end of last quarter, which is 8 consecutive quarters above the 40% model. When the auto industrial inventory rebalancing getting improved, we strongly believe that with the momentum and the pipeline we have in place that will continue to drive the percentage improvement in this area.

So, if we continue to do all this and plus the manufacturing efficiency improvement, including the cost downs and stuff like that, we are confident that the margin will -- going back to the right momentum, right.

David Neil Williams - *The Benchmark Company, LLC, Research Division - Senior Equity Analyst*

Just one quick last one, if I may. Are you seeing any demand impacts in the China region, specifically from some of the domestically sourced component quotas that they've initiated? Is that dampening down your demand? Are you seeing anything in that area yet.

Emily Yang - *Diodes Incorporated - SVP of Worldwide Sales & Marketing*

So, Dave, can you repeat -- are you saying China quotas? I want to make sure I hear it correctly.

David Neil Williams - *The Benchmark Company, LLC, Research Division - Senior Equity Analyst*

Yes, just the quota in terms of domestically sourced components. We're hearing that from a couple of other companies, I'm just curious if you're seeing that or if that is something that's impacted your business here at all yet.

Emily Yang - *Diodes Incorporated - SVP of Worldwide Sales & Marketing*

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Yes. I think -- I mean, definitely, we talk about the competition from China directly or indirectly related to the quota, right? So, I think, at the end of the day, if our product doesn't really have a strong differentiation, if it's not the feature functions and then we ending up with a lot of competitors from the other region, these are the products and also business will face or continue to face a lot of challenge, right?

So, our strategy, specifically in China, has been more focusing on the technology and the product differentiation. I don't really believe all the American company are impacted. It's all down to the level of the product and the technology, right? So I would say, definitely, there are some impacts, but I would say it's probably more on the small scale. Right, [small step].

Gary Yu - Diodes Incorporated - President & Director

Right. Right. Actually, as you know, the total revenue of China, really especially like China local local does not really take a bigger percentage of Diodes' total revenue. So the impact is relatively small because we have a lot of customer in China, but they produce the product, it's really OEM or like international transfer business. So, I do believe in this area we're pretty firm on our position.

Operator

And our next question will come from Gary Mobley with Wells Fargo.

Gary Wade Mobley - Wells Fargo Securities, LLC, Research Division - Senior Analyst

I want to start out with a clarification or clarification request and then a related question. So, when you speak of qualification of new products to become more vertically integrated, I assume you're talking about the qualification at the Portland fab, which you picked up from Onsemi and the Greenock facility you picked up from TI. Is that correct?

And then related to the MSA that you have with those 2 particular parties, can you give us a sense of how those evolve over time? How you will slowly transition those facilities over to your own internal manufacturing and maybe what some of the minimums are with those parties and how those minimums go down over time?

Gary Yu - Diodes Incorporated - President & Director

Hi Gary. This is Gary. So, I think for the years, we have a manufacturing service agreement in places for our OEM customer in both AT and the foundry service. So not only limited on the foundry service, just want to make sure that we understand on that. And their loading can be adjusted time to time by their end demand and (inaudible). With that, we do see some impact on revenue and GP from third quarter last year.

But not much we can control that. I cannot disclose too much detail about that. Just in case you have any question related to that, kind of demand stop or not. However, while we're working very hard in the past couple of years, it's continuing to offload our outside loading from our partner in the different foundry and continue qualifying internally and get all key customer approval.

But as you know, you're absolutely correct for those kind of SPFAB from Onsemi and GFAB from TI, and we are doing our best to qualify our technology and our product over there. But at the same time, we do need to have our customer to approve our PCN to change wafer fab. That take a little bit longer time. Now especially after COVID and the demand softened at this moment, the customer's willingness to change the PCN or change the different wafer fab on site will be much slower than the time we have a shortage area, okay? That's the way you need to understand.

But so far, our progress, internal qualification is very good, and we do see some project ahead of our June schedule, as I can tell you at this point. So, just like Emily said, at this moment, we do see the loading risk on those 2 wafer fabs and as well as some loading in our assembly side. But in the nearly future, I do believe and I do have a very good confidence if those new products can be qualified in both our site and our customer side as that ramp-up.

Gary Wade Mobley - Wells Fargo Securities, LLC, Research Division - Senior Analyst

Okay. As a follow-up, I do have another clarification question. With respect to the green shoots of improving demand, should I assume that's primarily on the 3C side of the market as inventories have been normalized there? And given that those businesses are your most seasonally sensitive businesses and you're seeing green shoots of then demand, would you expect this normal second half seasonal patterns where the third quarter is up maybe high single-digit percent sequentially, the fourth quarter down mid-single-digit percent sequentially?

Emily Yang - Diodes Incorporated - SVP of Worldwide Sales & Marketing

Yes. So, Gary, this is Emily. Let me answer the question, right? So I think I did talk about it before, right? So what we're seeing is automotive inventory rebalancing will probably continue into the second quarter because it's not across the board customer and part and program varies a lot. So, it's not going to be like one way or the other. So it's going to gradually change. Industrial, because it's a broad market, so most likely, the correction will last into the second half of the year, right? 3C, from the computing point of view, inventory is clean and we do expect the second quarter as well as the second half stronger than the first half.

From the consumer side, I think overall demand is still slower than our expectation, but we still expect some of the new programs will start ramping in the second quarter and peak in the third quarter, right? And then because the [holiday build], usually fourth quarter maybe only half month or a month only benefit from this market segment.

And then from the communication point of view, right, the networking, the telecom, I think the demand is more on the slow side. So the inventory correction is actually slower to digest the inventory, and it will probably last into the second half of the year, depends on the customers as well.

On the smartphone side, I think it's driven by the demand. And overall, I would say the demand is still slower than expectation. But with all adds up, we actually strongly believe that Q2 will be a stronger quarter than Q1. That's the reason we actually guided 4.6%. We also believe second half of this year will be better than the first half, right? So, that's still -- we actually, based on what we have as a backlog, we look at the book-to-bill ratio, we look at different factors. So, I would say yes to your question, the second half will be stronger than the first half.

We're not here to call out the percentage of the improvement, right? Because I think there's still a lot of uncertainty going on in the market. But if you combine both, second half is better than the first half for sure.

Operator

(Operator Instructions) Our next question will come from Tristan Gerra with Baird.

Tristan Gerra - Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst

Are you able to quantify the percentage of the product that you're migrating to internal manufacturing on the front end? What is the percentage that you're currently outsourcing, what that percentage will be as you qualify more product internally? And is that mostly for your analog product as opposed to discrete?

Brett R. Whitmire - Diodes Incorporated - CFO

Tristan, on this one, I think what you'll see is what we're -- it's a blend of both our analog and our discrete that we're bringing inside. What we're really trying to do is the technology nodes that run in a decent volume that are right down the fairway, making sure we have flexibility inside and out. And as we've been doing in the past, really, we look at wanting to be able to in-source between 50% to 60%.

And during softer times, we'd like to run that higher, and we'd want to make sure that we have SPFAB and the Greenock fab being able to carry the brunt of that because they're kind of our foundational fabs across the 2 different platforms we have. And that's really where the initiative is, is

not being on so dispersed and spread out, but really getting integrated into those factories and really trying to drive leverage, both from a cost and scale and be able to drive both revenue opportunities as well as cost over time. So that's kind of what we see.

Gary Yu - *Diodes Incorporated - President & Director*

Right. And also, I want to clarify Tristan, is that not 100% from those 2 fabs have transferred from outside to inside. We do have a newer technology really tape-out in those 2 wafer fab starting from 0. So that's really good news for us. So when we say that, it does not mean 100%, we are offloading from the outside foundry factory. So we do have our internal technology and product tape-out releasing in these 2 particular wafer fab.

Tristan Gerra - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

Great. That's very useful. And then just following up on the commentary about inventories. In the Q2 guidance that you're providing, do you expect to build additional inventories on your books? Or do you think that as you reduce your utilization rates in the quarter, you're now building in line with actual end demand? And then secondarily, could you talk about what point of sales for -- at [distis] is embedded in your Q2 revenue guidance?

Brett R. Whitmire - *Diodes Incorporated - CFO*

Yes, I'll make a couple of comments, Tristan, and then let Emily run with some others, is that what I'd say on the inventory front is that we basically have done some things in first quarter that address needing to make sure we have availability in place, addressing uncertain order patterns, addressing the fact that Chinese New Year came in February, which is a much more difficult time to manage that across the quarter and have an availability in place.

And as we look out in second quarter, what we expect is essentially to be running at a level of what we expect demand to be. I don't expect to be building inventory internally, and we certainly don't expect to be building inventory externally. We continue to expect to make progress there, and we continue to see good activity from a POS perspective. And maybe I'll see if Emily wants to extend that comment at all.

Emily Yang - *Diodes Incorporated - SVP of Worldwide Sales & Marketing*

Yes. So, Tristan, to answer your question, when we provide the Q2 guidance, we do consider the point of sales forecast as well as the channel inventory situation. So -- and then that coupled with the backlog and then some other things that we're seeing. So, yes, it is included into our estimate.

Tristan Gerra - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

Okay. And then if I could slip maybe a quick third and last question, otherwise, I'll go back in the queue. But can you say where your utilization rates are currently at the front end? And what type of internal inventory days you need to see on your book before you start ramping utilization rates again?

Brett R. Whitmire - *Diodes Incorporated - CFO*

Well, I would say that we haven't really been communicating our utilization rates. but relatively speaking, what I would say is that we like to run our assembly test in the mid-90s, and we like to run the fabs in the mid-80s, and we're not in that place on either one. We're significantly below that. And we believe that as things pick up and we continue to see strength, that's going to be a tailwind for us, is being able to load our factories.

That's not something we've been -- we have not maintained our utilizations across the period over the last year as we've seen the softness. As we think about the utilizations over time, what we're -- will be -- our strategy is going to be to maintain utilization consistent with demand as we move.

We think we have availability in a good place. We're trying to make sure we're opportunistic. We think that's what we're going to win with that. And so that's the approach we're taking from a factory side.

Operator

And our next question will come from William Stein with Truist Securities.

William Stein - Truist Securities, Inc., Research Division - MD

Great. First, perhaps I'll take another whack at the inventory question. There was a big build, again, sequentially dollars and days. Can you remind us what the long-term inventory target is and when you'd expect to get there approximately?

Brett R. Whitmire - Diodes Incorporated - CFO

I'd say on inventory, what we're looking at is trying to -- when we look at our portfolio of 50,000 parts and the availability and the mix, one of the things that we were never able to do is really get availability across the breadth of our portfolio in place, especially off of some of the more critical products and some of our most premium products. And so, we would actually be constrained on some of our best products in terms of availability near-term.

And so, what we've done across this period, and you can see it the last couple of quarters is, as we start to get a feeling that we're coming out, seeing light at the end of the tunnel, making sure we're in a position that from availability within that 6 to 8 weeks, we want to have a reasonable mix of product off the shelf. And that is something we're actively working on. We're actively -- both our shelf, we're actually working availability mix with our distributor. We see progress on that, and Emily mentioned it.

And I think from a weeks of inventory and finished goods, that's not something we're strategically planning to increase. As we actually see things start to lift up, our goal would be to try to maintain that as we move through -- maintain utilization with demand and be able to basically have an advantage on availability. We think our service is an advantage over time. And certainly, if we have availability there, we think that's going to be an opportunity to gain share and to get momentum as demand picks up.

Gary Yu - Diodes Incorporated - President & Director

Yes. Actually, we do see more and more short lead time PO coming in -- really the demand we saw starting from end of the first quarter. So, if we put a right mix of our inventory in our house, we got much better chance to support this kind of rush order.

William Stein - Truist Securities, Inc., Research Division - MD

Just before I go on to my next question, I just want to make sure I understand what you're saying. You're running at about 190 days of inventory. Is that -- it would be, I guess, sort of unusual to hear a company at this point in the cycle, say that they want to maintain that level of inventory, but maybe that's a great strategy. Can you just confirm my understanding? Or are you meaning on a dollars basis, whereby the days would shrink pretty precipitously if revenue rebounded?

Brett R. Whitmire - Diodes Incorporated - CFO

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I think what we're saying, Will, is if you look at the mix of that by finish level across this -- across time, this has not been something that's really changed significantly in terms of the dollar investment that we've made on the raw material side. That's something that kind of feeds our factory as well as we outsource.

From a work-in-process perspective, that's something that's really kind of been adjusted as we see demand. But from a finished goods perspective, we have strategically tried to put availability in place to have a better mix of product. What would -- as demand picks up, I would imagine at some point that, that strips away from us. But for some period of time, we're going to try to maintain that kind of 6 to 8 weeks of finished goods availability on average.

I think that's not something we have across all the parts. We're trying to -- the portfolio is large and broad, but I think that's what you see us trying to do. And when I say trying to maintain, I think we're going to try to hold on to the fact that we believe that having good availability is going to give us a benefit to grow on some of our most premium accounts and premium parts.

William Stein - *Truist Securities, Inc., Research Division - MD*

That's really helpful. I had a couple of maintenance questions. Normally, I've asked about the disti versus direct split, but you provided that in the presentation. I appreciate it. One of the other sort of maintenance questions is the year-over-year change in ASP, which you always have in the 10-Q. Also, I was wondering if perhaps you'd start disclosing what book-to-bill is in the quarter and what backlog is in the quarter.

Emily Yang - *Diodes Incorporated - SVP of Worldwide Sales & Marketing*

Yes. So let me -- Will, let me answer the question, right? So, direct and distribution is 39% versus 61%. What we usually still using 2/3 versus 1/3 as a rough estimate. Some of the quarter changed a little bit here and there. Specifically, you see 61% with distribution for the Q1 also reflected in my discussion earlier that we're actually seeing the channel inventory value decrease by the end of Q1, right?

So, on the weighted ASP change from year-over-year point of view, it actually dropped slightly more than 25%. But there's definitely a mix change in there as well, right? So when we start seeing auto industrial as an example, from the percentage decrease, that's actually directly impacting the weighted average price as well, right?

So, if we look from the mix independent point of view, we did actually build in 1.5% to 2% per quarter cost degradation. What we've seen is actually with the mix independent ASP change is actually pretty small and definitely within the range, within our estimate, right? And then how do we really balance that, that's really driving some of the cost down. Manufacturing efficiency that I mentioned earlier, right?

Operator

And this concludes our question-and-answer session. I'd like to turn the conference back over to Gary Yu for any closing remarks.

Gary Yu - *Diodes Incorporated - President & Director*

Thank you, everyone, for participating on today's call. We look forward to reporting our progress on next quarter's conference call. Operator, you may now disconnect.

Operator

The conference has now concluded. Thank you for attending today's presentation, and you may now disconnect your lines.

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