

**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): February 06, 2023

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 Hedcoxe 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 February 6, 2023, Dr. Keh-Shew Lu, Chairman, President and Chief Executive Officer of Diodes Incorporated, (the “Company”), as well as Brett R. Whitmire, Chief Financial Officer, Emily Yang, Senior Vice President, Worldwide Sales and Marketing, Gary Yu, Senior Vice President, Business Groups and Gurmeet Dhaliwal, Director of Investor Relations, participated in a conference call to discuss the Company’s fourth quarter and calendar year 2022 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.

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 February 6, 2023, announcing the Company’s fourth quarter and calendar year 2022 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 February 6, 2023. 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 February 6, 2023.
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: February 22, 2023

By: /s/Brett R. Whitmire
Brett R. Whitmire
Chief Financial Officer

REFINITIV STREETEVENTS

EDITED TRANSCRIPT

DIOD.OQ - Q4 2022 Diodes Inc Earnings Call

EVENT DATE/TIME: FEBRUARY 06, 2023 / 10:00PM GMT

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CORPORATE PARTICIPANTS

Brett R. Whitmire Diodes Incorporated - CFO

Emily Yang Diodes Incorporated - SVP of Worldwide Sales & Marketing

Keh-Shew Lu Diodes Incorporated - Chairman, CEO & President

CONFERENCE CALL PARTICIPANTS

Joshua Louis Buchalter Cowen and Company, LLC, Research Division - VP

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

Leanne K. Sievers Shelton Group - President

PRESENTATION

Operator

Good afternoon, and welcome to Diodes Incorporated Fourth Quarter and Fiscal 2022 Financial Results Conference Call. (Operator Instructions) As a reminder, this conference call is being recorded today, Monday, February 6, 2023.

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' Fourth Quarter 2022 Financial Results Conference Call. I'm Leanne Sievers, President of Shelton Group, Diodes' Investor Relations firm. Joining us today from Taiwan are Diodes' Chairman, President and CEO, Dr. Keh-Shew Lu; Chief Financial Officer, Brett Whitmire; Senior Vice President of Worldwide Sales and Marketing, Emily Yang; Senior Vice President of Business Groups, Gary Yu; and Director of Investor Relations, Gurmeet Dhaliwal.

Before I turn the call over to Dr. Lu, I'd like to remind our listeners that the results announced today are preliminary as they are subject to the company's 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-K for its full fiscal year ending December 31, 2022.

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 of the company's future performance represent management's estimates as of today, February 6, 2023. Diodes 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.

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' Chairman, President and CEO, Dr. Keh-Shew Lu. Dr. Lu, please go ahead.

Keh-Shew Lu - Diodes Incorporated - Chairman, CEO & President

Thank you, Leanne. Welcome, everyone, and thank you for joining us today. I'm pleased to report record performance in 2022, with revenue growth 10.8% over 2021, even when considering the COVID-related lockdowns and the power outage throughout the year in China as well as the global economic slowdown. In fact, the fourth quarter represented our ninth consecutive quarter of year-over-year growth. Additionally, our earnings power and cash generation in 2022 were also significantly highlighted with gross margin expansion to 422 basis points to 41.3%; operating margin expanding 510 basis points to 20.4%; and GAAP EPS increased 44% to \$7.20; and non-GAAP EPS growing 42% to \$7.36. We also achieved record cash flow for operating of \$393 million.

Underpinning the company's noteworthy performance was continued strong growth in our automotive end market, which increased 40% over 2021 and reached 15% of product revenue for the year. We also continued to drive growth in our industrial end market through our ongoing content expansion efforts, which contributed to our industrial and automotive end markets representing 42% of product revenue and exceeding our target model of 40%. The growth in those end markets combined with the ongoing increase of our Pericom products also contributed to our strong gross margin expansion throughout the year as part of our product mix improvement efforts.

Reaching the \$2 billion revenue level in 2022 was a significant and meaningful achievement of the entire Diodes team. With gross profit growing 23% to \$827 million for the year, we have taken another giant step towards the next goal in our 2025 financial targets to achieve \$1 billion in annual gross profit. I'm very proud of our accomplishments and our ability to consistently deliver both top line growth and significantly expanded earnings for our shareholders.

With that, let me now turn the call over to Brett to discuss our fourth quarter and full year financial results and our first quarter 2023 guidance in more detail.

Brett R. Whitmire - Diodes Incorporated - CFO

Thanks, Dr. Lu, and good afternoon, everyone. Revenue for the fourth quarter 2022 was \$496.2 million, increasing 3.3% from \$480.2 million in the fourth quarter 2021 and down 4.8% from the \$521.3 million in the third quarter 2022. Full year 2022 revenue grew to a record \$2 billion, an increase of 10.8% over the \$1.8 billion in 2021.

Gross profit for the fourth quarter was \$206.2 million or 41.6% of revenue, increasing from \$190.7 million or 39.7% of revenue in the prior year quarter and down from \$217.8 million or 41.8% of revenue in the prior quarter. For the full year, GAAP gross profit was a record \$827.2 million, a 23.4% increase over 2021. And GAAP gross margin improved 420 basis points to a record 41.3%.

GAAP operating expenses for the fourth quarter were \$109.7 million or 22.1% of revenue; and on a non-GAAP basis were \$105.9 million or 21.3% of revenue, which excludes \$3.8 million of amortization of acquisition-related intangible asset expenses. This compares to GAAP operating expenses in the fourth quarter 2021 of \$104.7 million or 21.8% of revenue; and in the third quarter 2022 of \$105.4 million or 20.2% of revenue. Non-GAAP operating expenses in the prior quarter were \$101.3 million or 19.4% of revenue.

Total other expense amounted to approximately \$1.7 million for the quarter, consisting of \$490,000 of other income, \$2.9 million in interest expense, a \$400,000 foreign currency loss and \$1.1 million of interest income.

Income before taxes and noncontrolling interest in the fourth quarter 2022 was \$94.8 million compared to \$108.8 million in the prior year quarter and \$109.1 million in the previous quarter.

Turning to income taxes. Our effective income tax rate for the fourth quarter was approximately 1.5%, which includes taxes related to non-GAAP items. On a non-GAAP basis, the tax rate for the fourth quarter was approximately 18.7%; and for the full year 2022, the non-GAAP tax rate was approximately 18.5%.

GAAP net income for the fourth quarter 2022 was \$92.1 million or \$2 per diluted share compared to \$65.5 million or \$1.43 per diluted share in the fourth quarter 2021, and \$86.4 million or \$1.88 per diluted share in the third quarter of 2022. For the full year 2022, GAAP net income was a record \$331.3 million or a record \$7.20 per diluted share, which was approximately 45% increase from the \$228.8 million or \$5 per diluted share in 2021.

The share count used to compute GAAP diluted EPS for the fourth quarter 2022 was 46.1 million shares and 46 million shares for the full year.

Non-GAAP adjusted net income in the fourth quarter was \$79.6 million or \$1.73 per diluted share, which excluded, net of tax, \$3.1 million of acquisition-related intangible asset costs. This compares to \$73.3 million or \$1.60 per diluted share in the fourth quarter 2021 and \$92.2 million or \$2 per diluted share in the prior quarter.

For the full year, non-GAAP adjusted net income was a record \$339 million or a record \$7.36 per diluted share, an increase of approximately 43% from the \$237.2 million or \$5.18 per diluted share in 2021.

Excluding noncash share-based compensation expense of \$7.6 million, net of tax, for the fourth quarter and \$28.7 million for the full year, both GAAP earnings per share and non-GAAP adjusted EPS would have increased by \$0.16 and \$0.62 per diluted share, respectively.

EBITDA for the fourth quarter was \$129.6 million or 26.1% of revenue compared to \$139 million or 28.9% of revenue in the fourth quarter of 2021, and \$141.9 million or 27.2% of revenue in the prior quarter. We had a gain on investment in the fourth quarter of 2021 that benefited EBITDA in that quarter. For the full year, EBITDA improved 19.7% to a record \$520.4 million or 26% of revenue compared to \$434.6 million or 24.1% of revenue in 2021.

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 generated from operations was \$102.9 million for the fourth quarter and a record \$392.5 million for 2022. Free cash flow was \$39.1 million, which included \$63.8 million for capital expenditures. And for the full year, free cash flow was \$180.8 million, including \$211.7 million for CapEx. Net cash flow was a negative \$44.7 million, including the paydown of \$114.1 million of total debt. And for the full year, net cash flow was a negative \$25.7 million, which includes the net paydown of \$112.3 million of total debt.

Turning to the balance sheet. At the end of the fourth quarter, cash, cash equivalents, restricted cash plus short-term investments totaled approximately \$348 million. Working capital was \$729 million and total debt, including long term and short term, was \$186 million.

In terms of inventory, at the end of the fourth quarter, total inventory days were approximately 117 as compared to 113 last quarter. Finished goods inventory days were 33 compared to 32 last quarter. Total inventory dollars decreased \$14.5 million from the prior quarter to approximately \$360.3 million. Total inventory in the quarter consisted of a \$12.1 million decrease in finished goods, a \$3.2 million decrease in raw materials and a \$0.7 million increase in work in process.

Capital expenditures on a cash basis were \$63.8 million for the fourth quarter and for the full year, approximately \$211.7 million or 10.6% of revenue. Full year CapEx was higher than our target model due to targeted expansion of our JK Wafer Fab in Hsinchu Science Park in Taiwan. Without this investment, we would have been within our target model of 5% to 9%, and we expect to remain in this range this year.

Now turning to our outlook. For the first quarter of 2023, we expect revenue to be approximately \$467 million, plus or minus 3%. GAAP gross margin is expected to be 41.0%, plus or minus 1%. Even with the revenue and loading decrease in the first quarter, we expect to maintain our gross margin effectively comparable to the last quarter and above our target model of 40%. Non-GAAP operating expenses, which are GAAP operating expenses adjusted for amortization of acquisition-related intangible assets, are expected to be approximately 22.2% of revenue, plus or minus 1%. We expect net interest expense to be approximately \$2.5 million. Our income tax rate is expected to be 19%, plus or minus 3%, and shares used

to calculate EPS for the first 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. As Dr. Lu and Brett mentioned, 2022 was a record year for Diodes across all financial metrics. Fourth quarter revenue was down 4.8% sequentially, which is above our midpoint of our guidance and slightly better than our typical seasonality. Looking more closely at the fourth quarter revenue, POS was a record in Europe. Distributor inventory in terms of weeks increased quarter-over-quarter, which is higher than our normal -- defined normal range of 11 to 14 weeks.

This increase is due mainly to demand softness in China related to COVID and our anticipation of COVID recovery in Q2 as well as our anticipation of labor shortage around Chinese New Year. We position more product to minimize the potential impact and quick response once the market recovers. Overall demand and backlog remains stable across all regions, especially for automotive, industrial end markets.

Looking at the global sales in the fourth quarter. Asia represented 73% of revenue; Europe, 15%; and North America, 12%.

In terms of our end market, industrial represented 28% of Diodes' product revenue; computing, 23%; consumer, 18%; communications, 14%; and our automotive end market reached a record 17% of the product revenue. Our Automotive and Industrial end market combined totaled 45% of product revenue for the quarter, which is 5 percentage points above our 2025 target and above 40% for the fourth consecutive quarter. This further demonstrates Diodes' ability to quickly adjust our capacity allocation, from low-end PC consumer and smartphone segments to high-demand end markets like Automotive and Industrial.

Now let me review the end markets in greater detail. Our Automotive market continued to be a highlight for both the quarter and the full year, setting revenue records for 10 consecutive quarters and growing 40% in 2022. Our consistent strong growth in this market can be contributed to our ongoing demand creation efforts as well as market share gains across new and existing customers.

Our design win momentum continues in our 3 application-focused areas of Connected Driving; Comfort, Style and Safety; and Electrification. In Connected Driving, we continue to see increased interest for our USB Type-C ReDrivers, analog switches, diode controllers, LDOs, DC-DC Buck converters, Zener diodes and TVS in the rear seat entertainment, ADAS, infotainment, smart cockpit, telematics and instrument cluster applications. We also saw increasing design-ins for our video switches used in MIPI DisplayPort and USB switches in telematic communications system by multiple customers.

In Comfort, Style and Safety, our linear LED drivers and DC-DC Buck converters were designed into next-generation LED lighting applications. Our sensors business grew significantly driven by applications, including electronic steering, control lock, refilling covers, window lifters and water pumps. High-voltage switching diodes and Zener diodes also grew in the quarter, primarily in the air quality sensors and HVAC applications. Several of our SBR automotive products were designed into battery-powered electric vehicles and plug-in hybrid vehicles for automotive safety applications. We also secured a number of new design wins for USB charging controllers for in-vehicle USB charging devices.

Lastly, in the electrification, our 32-bit I/O expanders were designed into EV vehicles control units, and our TVS products designed into high-speed data lines for EV display electric vehicles. Our protection products also has strong growth in applications, including lithium-ion battery control and onboard diagnostic systems. Additionally, we ramped up our MOSFET products in multiple new applications across several different customers while releasing a number of low-voltage MOSFET products for the battery managed system and WiFi application.

In our Industrial market, revenue also set another record, representing the sixth consecutive quarter of growth.

Our PCI Express 3.0 packet switches continued to gain traction in industrial automation applications as they enable enhanced performance by connecting SoCs and CPUs to the endpoints. Additionally, our high-voltage industrial IoT devices experienced very strong demand for the smart

electric meters. Similarly, our LED controllers ramped up in the LED power supply for power industrial/commercial LED lighting. And our industrial sensor business continued to gain traction in power tools, air condition, DC motors and the washing machine applications.

Additionally, we continue to secure design wins for our CIS product in AOI applications like battery film, PCB, wafer inspection and check scanners. Also, our switching diodes, Zener diodes, fast recovery rectifier and LED drivers has been helping to support smart, efficient, green factory automation applications, including utility metering, industrial sensors, cameras, scanners, elevators and image processing equipment. Diodes' SBR product is also being widely used in Power-over-Ethernet, while MOSFETs saw traction in new power applications.

In the Computing market, despite the softness in low-end PC applications, our momentum for SBR, TVS, MOSFET and current monitoring product continued in the notebook and tablet designs. We secured numerous design wins for I3C switches, SMBus level-shifters, analog switching, I/O expanders and TVS in the cloud server protection applications. Additionally, our eDP ReDrivers, eDP MUX and 20-gigabit per second DP 2.0 ReDrivers are being adopted in the gaming notebooks and add-in graphic card applications.

In the Communications market, our USB Type-C audio switches, I/O expanders, MOSFET and Hall-effect switches continue to be designed into a series of smartphone devices, while our LED drivers were designed into mobile phone peripheral products, including wireless chargers. Also, our Schottky product was designed into 5G WiFi applications, and we continue to see traction for our PCI Express clock buffers family in 5G CPE designs and TVS products in networking applications.

Lastly in the Consumer market, we saw increased adoption of our 12-bit high-speed MUX in the embedded Multimedia Card modules, and our current limit power switches continue to see solid demand from USB power applications in gaming consoles. Our 8.1 10-gigabit bidirectional retimers were also adopted in active cable applications, and our TVS protection products, USB switches, SBR CSP products and USB power delivery decoders were designed into security keys, sports cameras, next-generation television, wearables, and portables as well as wall-mounted USB-C power socket application.

In summary, Diodes' achievement of record results in 2022 once again highlighted the ongoing success of our customer expansion initiatives as well as our focus on product mix improvement towards higher-margin products and end markets to drive increased profitability. Our significant expansion and growth in the Automotive and Industrial end markets is a direct result of the strategic actions. We look forward to further expanding our momentum and continue to progress in the coming year.

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

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) Today's first question comes from William Stein with Truist.

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

I'm hoping you can review the channel inventory trends again. I think you mentioned it briefly in the prepared remarks. But I just want to hear the clarification as to what happened in the channel in the quarter and what you expect will happen in the current quarter in distribution?

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

Will, this is Emily. Let me answer this question, right? So, I did mention the channel inventory was up quarter over quarter. It's a little bit higher than our normal range at this moment. But with -- I mean, the main reason due to this change is actually a couple of things. We definitely see China softness during the COVID in the fourth quarter. And then we also have an anticipation of recovery from some of the like 3 Cs that we talked before.

They started some of the channel inventory or inventory rebalancing for the last few quarters. So, there's anticipation of that recovery as well as there's a labor shortage during the Chinese New Year time frame. So, with all this dynamic situation combined, so we actually also strategically increased some of the channel inventory so that way, we can better support the customers' last minute or demand change.

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

And can you talk about your outlook by end market for the coming quarter?

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

Yes, sure. I think automotive, we're still seeing a lot of strength overall. So, our pipeline continues to grow, our engagement continues to enrich. And if I just look at the whole year or quarter-over-quarter comparison, automotive is still a record quarter for us by the end of Q4. And if we look at the whole year, year-over-year growth still 40% plus, right? So that's really, really exciting. And then for industrial, I think it's a little bit mixed. There are certain end application softer than the others. We're also seeing some inventory rebalancing going on. But when we take everything together, I would say still a really stable end market at this moment. And then computing, we talked about it, inventory rebalancing probably started beginning of Q3 last year. So, we're still seeing softness going on, but we also, like I mentioned, there's an anticipation of recovering probably in a quarter or two, right? Consumer, we're still seeing some softness, especially from the China market. And then on the communications side, on the smartphone, I think still inventory rebalancing is still ongoing. But again, right, so once they get to a certain level, we do expect some recovery.

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

It sounds like an ongoing -- it sounds like a similar trend in the coming quarter relative to what we've seen over the last quarter or two if we can --is that correct? We shouldn't interpret any divergent performance or any pivot in Q1 relative to what we've seen in Q4?

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

Yes. So, I would say there's no significant change from the end market point of view. But the key thing for us is continue to focus on our product mix improvement, right, continue to leverage our capacity to lower the support for the slow end market and focus supporting the strong demand end markets like automotive as well as industrial applications, right?

Operator

The next question comes from Matt Ramsay with Cowen.

Joshua Louis Buchalter - Cowen and Company, LLC, Research Division - VP

This is Joshua Buchalter on behalf of Matt. Congrats on the stellar results. I wanted to follow up on Will's question. So, if I'm understanding correctly, the channel is running above their typical 11- to 14-week range. So yes, I know you're taking factory loading down, but does that mean you're sort of comfortable running above the typical range for a little while in anticipation of the recovery? I just want to make sure I'm understanding correctly.

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

Yes. I think, Josh, I did mention a little bit earlier, right, there's still a lot of dynamic situation going on with the labor shortage during the Chinese New Year, the softness due to the COVID, especially in China as well as anticipation of some recovery probably around the Q2 quarter. So, with all this combination of the situation, we are actually okay with the inventory, channel inventory higher than our defined normal range. The other

angle we look at is the quality of the inventory, right? So, it's not only about the number of weeks on the shelf, it's also the quality of the product on the shelf. So, we actually feel very confident stand behind the numbers.

Joshua Louis Buchalter - Cowen and Company, LLC, Research Division - VP

Okay. Understood. And I guess for my follow-up, I wanted to ask about gross margin. It's down sort of only marginally despite 2 straight quarters of mid-single-digit revenue declines, and it sounds like it's lower factory loadings as well. Can you walk through what's driving so much resiliency in your gross margin line? Is it a mix shift between end markets or products, continued strength in the pricing environment? Any color there would be super helpful.

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

Yes, definitely. It's a really good question, right? So, if you look at for the last few years, we really emphasize on two things. One is actually the total solution sales. The second thing is really product mix initiative or improvement overall, right? So, we openly talk about automotive, industrial is a key focus us. And if you look at the results, right, I mentioned earlier, just on automotive, we achieved 40% year-over-year growth. And then within the -- from 2013 to 2022, we compound the annual growth rate more than 30%. So definitely, it's a great success, and the consistency is actually definitely worth mentioning. I think with industrial again, it's actually our biggest segment. By the end of Q4, it's actually 28% of our total end market out of the products, right?

So, with the auto and industrial combined, based on the Q4 results, actually 45% of our total revenue, even with the whole year, that actually represented 42%. So, we openly talked about, by the end of 2017, we provided a guidance. With the segment, it's actually we want to achieve about 40%. As you can see, we have fourth quarter consistently above this target. So again, this is a really good demonstration of the product mix improvement initiative.

The other good example is actually Pericom product family, right? So, we've been talking about the margin overall is really, really attractive. And again, we consistently deliver the growth of this market -- product segments, right? So, with the combined, you can actually see, even with the revenue guidance slightly down around seasonality for Q1, but our margin guidance, 41%, still significantly higher, well higher than our 2013 model that we established of 40%. So, I hope you can actually see this is actually a really strong demonstration of our focus on product mix improvement.

Of course, coupled with our manufacturing efficiency, which is always the strength of the company. So, I think with all combined together, we're actually confident that we are on the right track and right path towards our 2025 defined goal, which is \$1 billion gross profit and \$2.5 billion revenue model, right? So...

Operator

(Operator Instructions) The next question comes from David Williams with Benchmark Company.

Seeing no further questions in the queue, this concludes our question-and-answer session. I would like to turn the conference back over to Dr. Lu for any further closing remarks.

Keh-Shew Lu - Diodes Incorporated - Chairman, CEO & President

Thank you for your participation on today's call. Operator, you may now disconnect.

Thank you. The conference has now concluded. Thank you for attending today's presentation. You may now disconnect.

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