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ADI.OQ - Q4 2020 Analog Devices Inc Earnings Call

EVENT DATE/TIME: NOVEMBER 24, 2020 / 3:00PM GMT

OVERVIEW:

Co. reported 4Q20 revenues of $1.53b and adjusted EPS of $1.44. Expects 1Q21 revenue to be $1.5b, plus or minus $70m and adjusted EPS to be $1.30, plus or minus $0.10.

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PRESENTATION

Operator

Good morning, and welcome to the Analog Devices Third Quarter Fiscal Year 2020 Earnings Conference Call, which is being audio webcast via telephone and over the web.

I'd now like to introduce your host for today's call, Mr. Michael Lucarelli, Senior Director of Investor Relations. Sir, the floor is yours.

Michael C. Lucarelli - *Analog Devices, Inc. - Senior Director of IR*

Thank you, Sheryl, and good morning, everybody. Thanks for joining our fourth quarter and fiscal 2020 conference call. With me on the call today are ADI's CEO, Vincent Roche; and ADI's CFO, Prashanth Mahendra-Rajah. For anyone who missed the release, you can find it and relating financial schedules at investor.analog.com.

Now on to the disclosures. The information we're about to discuss includes forward-looking statements, including statements relating to our objectives, outlook and the proposed Maxim transaction. These forward-looking statements are subject to certain risks and uncertainties, as further described in our earnings release, our most recent 10-K and other periodic reports and materials filed with the SEC. Actual results could differ materially from this forward-looking information as these statements reflect our expectations only as of date of this call. We undertake no obligation to update these statements, except as required by law.

Our comments today will also include non-GAAP financial measures, which exclude special items. We're comparing our results to our historical performance, special items are also excluded from prior periods. Reconciliations of these non-GAAP measures to their most directly comparable GAAP measures and additional information about our non-GAAP measures are included in today's earnings release.

Okay. With that, I'll turn it over to ADI CEO, Vincent Roche.

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Thank you, Mike, and good morning to you all. I hope that you and your families are healthy and safe at this time.

So 2020 represented a year of strategic progress for ADI in a very highly uncertain macroeconomic environment. Fortunately, ADI was already operating from a position of strength. Over the last decade, we've created a structurally more profitable business. We realigned our portfolio to target more durable end markets and become more diverse across customers, products and applications. During this past year and at the height of the pandemic, this business model proved quite resilient with gross and operating margins troughing at 68% and 37%, respectively, levels we previously considered peak. It's this resiliency that enables us to sustain a healthy level of investment against any economic backdrop.

We've also been not afraid to make strategic pivots towards the most attractive investment opportunities that enhance our customer engagement and better align us to secular growth trend such as digital health care. Clearly, the biggest investment decision of 2020 was our strategic combination with Maxim, which will further extend the scale and scope of our semiconductor portfolio, and I'll expand on this in a while.

As I reflect on the immediate challenges of our current environment, we believe there is more ADI can do to leverage our expertise to engineer a more sustainable future and make an even more positive impact on the world. To that end, earlier this year, we published our first corporate responsibility report and launched the semiconductor industry's first green bond. We also took action in the global fight against COVID-19.

We prioritize production of our health care solutions to support customers, and we're partnering with hospitals and biotech start-ups to develop solutions that leverage our technology. And our impact has extended beyond our own facilities and capabilities, as we've made multimillion dollar donations through the ADI Foundation to support both global and local pandemic response efforts.

Overall, I'm very proud of how we've come together. We embraced and learned from this challenging time and continue to execute at a high level to generate and capture value in the market.

Now turning to our results. In the fourth quarter, revenue was $1.53 billion, and adjusted EPS was $1.44, above the high end of our outlook. For the year, revenue was $5.6 billion, down mid-single digits year-over-year. This was partly driven by the economic volatility and supply chain disruptions related to the pandemic. Despite this, our cumulative B2B revenue outperformed peers for a third consecutive year. We actively managed operating expenses, delivering operating margins of 40% and adjusted EPS of $4.91. We generated approximately $1.8 billion in free cash flow in 2020.

While this year's 33% free cash flow margin is just below our long-term financial model, we continue to be in the top 10% of companies in the S&P 500.

So now I'd like to provide an update on how we're shaping ADI to be even more impactful in the future. During the year, we invested more than $1 billion in R&D, with over 95% targeted at the most attractive B2B opportunities. This includes funding new product development to fortify our franchises and drive new vectors of growth. As you know, we selectively use M&A to complement these organic investments, and we've taken a very significant step forward with the pending acquisition of Maxim.

The numerous customers I've spoken with about our combination are delighted that we will joint forces. Maxim will strengthen our leadership in the semiconductor industry, creating a more comprehensive analog, mixed signal and power portfolio and further diversifying our business across markets and applications. And 10,000 engineers strong, the acquisition will solidify ADI as the destination for the world's best analog talent.

We've also been disciplined in our approach to managing our balance sheet. Since we closed the Linear acquisition, we've cut our leverage ratio in half, increased our dividend by 40% and repurchased more than $1 billion of shares, and Prashanth will provide further details on our capital allocation outlook for 2021.

Shifting now to customer engagement. Our focus has been unwavering as we continue to solve our customers' toughest challenges. A key strength of ADI is our standard products portfolio. With its own parallel breadth and depth from DC 100 gigahertz from nanowatts to kilowatts and from sensor to cloud, we define the edge of performance.

Our portfolio is sold across customers of all sizes and provides recurring revenue for decades. But what's just as important, these standard products are the foundation upon which we build more targeted integrated solutions for higher growth vertical applications, such as 5G radio systems and automotive battery management.

To that end, industries are prioritizing digitalization and connectivity more than ever and new industries are merging focused on the physical and cyber. In many ways, it's semiconductors that are enabling the current virtual economy and ADI, where data is born, is at the center of this evolution and well aligned with key secular growth trends.

Now looking across our segments, I'd like to share some highlights with you. Starting first with industrial. This is an incredibly fragmented market with expanding needs as it transition to Industry 4.0 and beyond. We're in a unique position to not only solve traditional challenges like precision signal processing, control and power, but also new emerging challenges like connectivity and safety. For example, our time-of-flight solution enables safer factory floors by preventing accidents between humans, robot and cobots. And our connectivity portfolio of deterministic Ethernet, secure microwave RF and 5G is helping our customers to create ubiquitous connectivity, merging their operational and informational technologies to unlock the true value of Industry 4.0.

In health care, the pandemic is accelerating the market towards telemedicine and transitioning care into the home to support this. Systems are being upgraded and clinical-grade patient monitoring is extending outside of the hospital. We doubled our investment ahead of this trend, bringing to market hundreds of new products and tilting our offerings towards complete system solutions. The result, over the last 5 years, we've grown our customer base by over 20% and our revenues at a double-digit rate, even when excluding pandemic-related demand. And we're now increasing our investment in sensing, computing and cloud to help enable the secular shift to health care from anywhere.

In communications, we're the market leader in 5G, a position that will deliver significant growth as 5G broadens globally in 2021 and beyond. At the same time, we view open radio access networks, or O-RAN, as a disruptive technology, that enables carriers to scale and upgrade our networks more quickly and economically, an important step to help proliferate 5G into new markets.

And for ADI's wireless franchise, O-RAN opens up new avenues for growth.

To get ahead of the market, we're further innovating our transceiver and power portfolios to shape the radio of the future. We're also forming strategic partnerships with ecosystem participants, such as Intel and Marvell, and this strategy is working. Last quarter, we announced a collaboration with NEC to enable the first O-RAN installation for Rakuten Mobile.

The automotive market is undergoing a revolution with electric vehicles becoming mainstream. ADI is at the heart of this movement with over half of the top 10 EV brands using our BMS solution. And our new wireless BMS offers the same reliability and performance of our wired solution, while enhancing robustness and configurability. General Motors recently announced that they will deploy our wireless BMS across their entire Ultium battery line. Since the launch just a few months ago, interest in this groundbreaking technology is gaining momentum across the ecosystem.

Looking at automotive more broadly, demand for our audio system solutions with signal processing, A2B connectivity and road noise cancellation is intensified. Our innovative solutions are not only the highest fidelity performance technology in the market, but they also reduce weight, removing nearly 100 pounds from an average vehicle.

We've also identified opportunities to attach our LTC portfolio with our A2B platform to deliver both data and power up to 50 watts. By combining all these capabilities, we're creating deeper customer relationship, while increasing our SAM per audio system.

Turning to consumer now. This is a market that has had its fair share of challenges over the last few years for ADI. However, we believe that the business has bottomed in 2020. Recent design wins across a diverse customer base for new and emerging applications like hearables, wearables, high end audio and video solutions put consumer on a multiyear growth trajectory.

So in closing, this is clearly an unprecedented year for us all. We're optimistic that a broad-based recovery is underway, but acknowledge that the recovery remains dependent on the economic impacts of pandemic. With that said, I'm encouraged by our momentum, and we expect 2021 to be a growth year for the company. We've seen an improvement across nearly all of our end markets, and our portfolio is strategically aligned with favorable secular growth trends, a position that gets only stronger with Maxim. In my 30 years-plus at ADI, I've never been more confident about our prospects than I am today.

And so with that, I'm going to turn over to Prashanth, who will take us through the financial details.

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Thank you, Vince. Good morning, everyone. Let me add my welcome to our year-end earnings call. As usual, except for revenue and non-op expenses, my comments on the P&L and our outlook will be on a non-GAAP or adjusted basis, which excludes special items outlined in today's press release.

Let me start with a brief recap of 2020. The heightened uncertainty and significant disruption due to the pandemic certainly created a very volatile year. Revenue of $5.6 billion was down 6% year-over-year. However, we saw sequential improvement throughout the year. And our revenue was up 14% in the second half compared to the first.

Gross margins finished at 69%, down slightly year-over-year, but we enter 2021 within our long-term financial model. Op margins landed at 40% as we prudently managed our discretionary spend. All told, full year adjusted EPS was $4.91.

Now turning to the fourth quarter. Revenue of $1.53 billion was up 5% sequentially, marking the third consecutive quarter of growth. This exceeded the high end of our outlook driven mainly by stronger-than-anticipated growth in automotive.

And if we look at the individual segments, in the fourth quarter, Industrial, which represented 53% of revenue was up 5% sequentially and up 9% year-over-year. We saw growth across nearly all our major applications. Notably, automation, which makes up approximately 20% of industrial grew for the first time in 2 years. For the year, industrial revenue was about flat, underscoring the diversification across customers and applications in this business.

In the fourth quarter, communications, which represented 20% of revenue, was down 14% sequentially. However, the segment was up 19% year-over-year, driven by double-digit growth in both wireless and wireline. Importantly, our growth was not aided by customer pull-in activity related to geopolitical tensions. And for the year, communications revenue was down 8% year-over-year. However, excluding Huawei sales that were impacted in '19 and '20 by entity list restrictions, our revenue grew modestly, a testament to our strong positions in 5G and optical control for carrier networks and data center.

In the fourth quarter, automotive, which represented 15% of revenue was up over 40% sequentially and up modestly year-over-year. While we exit the year with revenue above pre-pandemic levels, it was still down mid-teens for the year due to lower vehicle production.

And finally, in the fourth quarter, consumer, which represented 11% of revenue, finished up 12% sequentially, yet down 17% year-over-year. As Vince mentioned, we believe we're positioned to grow in '21 and beyond after 3 years of declines.

Moving on to the rest of the P&L for the fourth quarter, gross margin was 70%, up 160 bps year-over-year. OpEx was $431 million, up 7% sequentially as we reinstated merit and experienced higher variable compensation. Op margins finished at 41.7%, up nearly 300 bps year-over-year. Non-op expense was $44 million, down both sequentially and year-over-year, driven by lower interest expense. And our tax rate was lower than usual at approximately 10% and adjusted EPS was $1.44.

If we shift to the balance sheet and cash flow, inventory dollars on our balance sheet declined modestly sequentially and inventory days finished at 121, down from 125 days in the third quarter. Channel inventory fell slightly and remains below our 7- to 8-week target as we saw strong sell-through trends across all geographies. We plan to return to our target inventory model as we progress through '21.

In the quarter, cash flow from operations was $673 million, up 2% year-over-year. Given the pandemic, we continue to be judicious with our CapEx, spending only $30 million this quarter or 2% of revenue. We do anticipate CapEx to normalize to around 4% of revenue for 2021. And for the full year, we generated over $1.8 billion of free cash flow. We returned $1.1 billion to shareholders through dividends and share buybacks or about 80% of free cash flow after debt repayments. This was below our target as we paused our share buyback program at the height of the pandemic and then were restricted following the Maxim announcement. As a result, our cash position increased to over $1 billion.

During the quarter, we used $450 million of our cash flow to retire our 2021 notes. Total debt ended the year at approximately $5.1 billion, resulting in a leverage ratio of 1.6 on a trailing 12-month basis.

Recently, we reinstated our share buyback program, which has $1.9 billion left in authorization or approximately 4% of shares outstanding. Given our low leverage, we do not plan to reduce debt further in '21. For context, over the last 3 years, we've decreased our debt by approximately $3 billion. This stronger balance sheet provides us with the flexibility to improve on our 100% free cash flow return and increase shareholder value over the long term, through a combination of reinvestment in the business, continued dividend increases, greater and more consistent share buybacks and targeted acquisitions.

So now let's look at our first quarter outlook. Revenue is expected to be $1.5 billion, plus or minus $70 million. At the midpoint of guide, we expect B2B revenue in the aggregate to increase high teens year-over-year.

Op margins are expected to be approximately 40% at the midpoint, down sequentially due to higher variable comp and annual merit. Interest expense is also expected to be down slightly sequentially. For 2021, we anticipate a tax rate between 12% and 14%. And based on these inputs, first quarter adjusted EPS is expected to be $1.30, plus or minus $0.10.

I'll wrap with a brief update on our pending acquisition of Maxim. In September, we received clearance from the Federal Trade Commission in the U.S. regarding our merger, followed by the overwhelming shareholder support of the combination from both ADI and Maxim shareholders. We also submitted initial applications for regulatory clearance in China and the EU. I'm very encouraged by our progress, and we remain on track to close the acquisition in the summer of 2021. We are excited about this complementary combination. And together, we expect that we will capture additional growth in the years ahead.

So with that, let me turn it back over to Mike to lead the Q&A.

Michael C. Lucarelli - *Analog Devices, Inc. - Senior Director of IR*

Thanks, Prashanth. Let's get to our Q&A session. (Operator Instructions) With that, we have our first question, please.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) And our first question comes from Vivek Arya from Bank of America.

Vivek Arya - *BofA Merrill Lynch, Research Division - Director*

Congratulations on the strong execution, especially the free cash flow generation. Vince, my question is on the demand environment, both near-term and what you sense for the next calendar year? So in the near term, which end markets do you feel are back to normal levels, which are below trend line? Because when I look at your January outlook, up 15%-or-so year-on-year, obviously, against some easier comps. You're certainly starting the year on a very strong note. But just how should we think about the overall year in terms of the puts and takes for the different end markets, industrial, auto, comms and consumer? Any broad color, just near-term and for calendar '21? I think it'd be really helpful to help kind of frame our models for your forecast.

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Sure. Thanks for your question, Vivek. I would say, clearly, as you said, overall demand is better. And I think as well, there's a very good balance between supply and demand. Inventories are, I'd say, very, very well balanced at our customers as best we can tell. Right now, we're seeing very strong trends in automotive and industrial. While we expected, comms is a little softer after a big first half of 2020. But overall, I believe 2021, I think, I said in the last call, is going to be a solid growth year for ADI and for the industry. And my conviction has become even stronger since the last earnings call here.

Let me try and unpack things a little for you, if I go through a couple of the market segments. Industrial, we've clearly seen a broadening of demand. And if you look at 2020, the first half, clearly about health care, aerospace and defense and automatic test equipment, strength in those areas. And that strength has persisted -- persisted in the second half of the year. And I think the second half actually saw good strength emerge in factory automation, process automation. They're more horizontal businesses for ADI. So we believe that, that strength will continue into the first quarter and beyond.

Automotive, as you will have seen, we had a strong upsurge there as well. And the business, in fact, is now back to pre-COVID levels. And bookings continue to remain strong in that area. And if I look at just the subsegments within to give you a little bit of color. Electrification is strong. So are BMS solutions, where we're on the fifth generation of BMS product solutions are doing particularly well. And our infotainment business, which is -- which has emerged beyond high fidelity rendering of audio and video. Our A2B solutions are emerging with great strength, given the pipeline that we've been building over the last several years, really. And you will have seen no doubt as well the active road noise cancellation solutions that we're adding again on top of that platform.

So if I look at maybe comms a little bit here. So 2020 was strong actually across both wireless and wired. Actually, both were up in the fourth quarter of high teens year-over-year. So if we extract Huawei, where we had the restrictions, 2020 was strong across all the rest of the customers. In fact, they grew during 2020.

So I think '21 will be about deployment of 5G, which is a big, big part of our communication story. I expect it will move more global, beyond China, particularly with deployments in North America. And I'm glad to be able to report as well consumer has been on the downward [trend] for several years, but we believe now that we've reached the bottom as we had expected in 2020. And given the diversity of applications that we're now addressing, broader-based customers, we feel good about that business in both the portable as well as the more professional solutions that we serve also. So hopefully, that answers your question completely, Vivek.

Operator

And our next question comes from Tore Svanberg from Stifel.

Tore Egil Svanberg - *Stifel, Nicolaus & Company, Incorporated, Research Division - MD*

Congratulations on the results. And then, so I was hoping you could zoom in a little bit more on comms and on 5G. You talked about O-RAN. Obviously, ADI has a very flexible approach with the software-defined radio. I was just hoping you could talk a little bit about how that architecture plays into the role of O-RAN? And just maybe some more comments on 5G generally.

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Yes. So if I look at what's happening in the business, maybe I'll take a shorter-term view and a slightly longer-term view and address your question on O-RAN as well, Tore. So what we're seeing is that in the business in general, as I said in the answer to the last question there, comms, in general, for us have seen strength in both wireless and wired technologies, optical wired, particularly in the wired area. And what we're seeing is obviously more aggressive deployments of these massive MIMO-based systems, where our channel count continues to increase, which gives ADI a lot more content for radio. And I would also say that our portfolio has never been stronger, given the investments we've been making up for several years, and our customer share has never been higher with the key OEMs are more balanced in terms of the span of technologies and products that we're supplying.

So I think it's important to remember, 5G is at the early stages of multiyear, probably decade run here. And I think 2021 will be characterized by the deployment of 5G more globally beyond China. I expect America to be the primary driver, probably towards the second half of 2021 for 5G. And we've also -- we've seen a lot of interest in our technologies for O-RAN. We're working with ecosystem partners in that area. You will have seen also the first announcement we've had publicly about the use of our technologies, our radio technologies with Rakuten Mobile in Japan to our partnership with NEC. So I think classical 5G being deployed for consumer applications will continue rapidly over the next 3 years. But I'm also beginning to see now the early stages of adoption of 5G into more deterministically critical applications like health care, factory automation and so on and so forth.

So I think if you look over the long term, Tore, this is going to continue to be a growth market for ADI. We have more content. We've got a stronger position with our customers. And we continue to push the boundaries of technology here to enable our customers to simply -- to deal with the complexity that's increasing exponentially and the more rapid innovation cycles with our software-defined radio systems.

Operator

Our next question comes from John Pitzer from Crédit Suisse.

John William Pitzer - *Crédit Suisse AG, Research Division - MD, Global Technology Strategist and Global Technology Sector Head*

Congratulations on solid results. A modeling question for Prashanth. Prashanth, if you look at the quarter, just reported the October quarter, incremental op margins were perhaps lower than I would have expected. I'm assuming that's variable comp coming back into the model as you guys continue to do better on the top line. But I'd be curious, as you look into the January quarter, how we should be thinking about OpEx, just given how funky a year -- calendar year '20 was because COVID had both some puts and some takes on the OpEx and expense line?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Yes. Thank you for the question, John. So let me -- let me handle that in 2 pieces. Let's talk gross margins and then OpEx. So for the quarter just passed, 70% gross margins, we had pretty considerable upside from automotive and so we have some mix headwind with that kind of explosive growth in automotive. It's below the corporate average in terms of margins.

As we think about gross margins for the coming quarter, for the first quarter, we're passing through the holiday period, so we're going to have a little bit of continued pressure on utilization, as we have some of our -- some of our fabs will be shut down for the holiday period. But we expect that to improve as the year progresses, and we bring in the remaining $50 million of cost reductions from the shutdown of the 2 LTC facilities in the balance of 2021.

On the OpEx side, you're exactly right. We've designed our variable comp system to really act as a shock absorber as a flywheel. So in 2020, when we had the great deal of uncertainty that operated the way it should and it unwound. In addition, we made a decision as a leadership team to delay implementing merit in 2020, and we brought that back into place this past quarter. So you'll see headwinds from those -- from both of those decisions into the first quarter. And I mentioned that in my guide, so it's both -- in my prepared remarks, it's both a full quarter of merit and better variable compensation.

Operator

Our next question comes from Ambrish Srivastava from BMO.

Ambrish Srivastava - *BMO Capital Markets Equity Research - MD of Semiconductor Research & Senior Research Analyst*

Vince, I wanted to zoom in on the industrial business. This business has been really resilient compared to the past cycles for yourself as well as your larger peer. So the question really is, can you just help us understand -- and you gave us a number 20% for automation. But if you help us understand the various segments that are contributing to how you're able to kind of plow through what we have seen, a pretty disastrous 1Q, 2Q? And then with Maxim, we all understand the complementary parts or the additive parts of the automotive. Can you just help us understand how does the industrial business benefit from the Maxim business that you'll be bolting on?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Yes. So thanks, Ambrish. Yes, first and foremost, it's been a fairly tricky time in terms of trying to predict GDP, but we've come out of the year with tremendous strength. First half of the year for ADI was about aerospace and defense, health care and the automatic test equipment sector as well. So -- and that's continued, by the way, through the second half. And then we're building upon that in the -- with the upsurge, the second half is the expansion of growth in factory automation, which is, particularly in the fourth quarter, began to see a very, very good surge, which we expect to continue, by the way, albeit I'll say somewhat depressed base as economic expansion really takes root, I believe, in 2021.

So -- and also this business for ADI, industrial owns more than half of the company's revenue. The crop of products out there is stronger than it has ever been in the history of the company. Our focus, a decade ago, we decided this was really the root of the company, and we're beginning to really see demonstrated in our results versus our competition, and we're gaining market share. I think that's important too. So we cover more customers. We have more market share, with better product portfolio. So with Industry 4.0 coming on board, health care moving towards digitalization, telemedicine, these all bode really well for ADI for the long term.

And where does Maxim add value to us? Well, industrial actually is really about -- it's primarily about precision signal processing and power management, and Maxim brings very a long heritage in those 2 areas, which we will deploy to even greater effect across the spectrum of sensor to cloud, the raw signal -- the sensing, the signal capture, signal processing, connectivity and that bodes very well for ADI. So I'm excited about getting more capability to bring to more customers as they require ADI to sell bigger [swaps] of problems for them. The complexity is growing in terms of their needs.

The analog skill is becoming scarcer and scarcer. So we'll bring more of that skill to bear to solve more problems in a more complete way for our customers. So I think that's the way to think about it, Ambrish.

Operator

Our next question comes from C.J. Muse from Evercore.

Christopher James Muse - *Evercore ISI Institutional Equities, Research Division - Senior MD, Head of Global Semiconductor Research & Senior Equity Research Analyst*

Another question on the industrial side, Vince. The business is growing 9% year-on-year in October, yet over the last 2 years, essentially flat. And so curious, it sounds like automation growing for the first time in 2 years is a real positive signal. So would kind of love to hear your thoughts on as we come out of this pandemic, what that business segment growth could look like, considering some of the growth factors that you're investing in like health care as well as perhaps some of the more tried and true machinery typical industrial businesses begin to recover?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Yes. So if I look -- thanks, C.J. If you look out over the longer term, so industrial automation has been really on its way down for the last 2, 2.5 years. And some of that was driven by the trade tensions. Obviously, with the automotive sector layoff in -- SAR was dropping anyway in 2019. The pandemic crushed demand there even more so in 2020. So automotive is a big, big consumer of sophisticated factory automation system. So that's all improving.

If I think about the long-term prospects for the business, given the vectors, the market vectors, the technology vectors that we've got, my sense is, if you think over the longer-term here, integrate the demand over 3-, 5-year period, my sense is this business can grow in the mid- to high single-digit level for ADI.

Operator

Our next question comes from Toshiya Hari from Goldman Sachs.

Toshiya Hari - *Goldman Sachs Group, Inc., Research Division - MD*

Vince, I wanted to follow-up on the automotive business, both in terms of your Q4 performance as well as the outlook into fiscal year '21. Just as sort of a clarification on Q4, you guys grew 40% plus sequentially. I think you were guiding that business to be up in the low teens. So obviously, a very big beat in the quarter. Was that essentially a function of higher volume across your customers? And therefore, a beat across most of your customers and most of your applications? Or were there any specific standouts in the quarter? And I guess, more importantly, into fiscal year '21, when you think about your automotive business and the potential for growth there versus the rate of recovering the overall global Automotive industry. What kind of outperformance would you expect on top of automotive production? It appears as though you guys talk about BMS and active noise cancellation in particular, but are there any specific drivers that you're most excited about?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Thank you. So let me try and unpack that for you. So yes, in fourth quarter, we were up 2% year-over-year. And actually, we had strength across all the applications. But even though our battery management solutions were down year-on-year, we did better than the auto market at large, and our position has gained strength with the new offerings that we have. And the share performance that we bring that nobody else can match in terms of the sensing, the signal processing. So I think that -- just looking at the prognostications of what electrification will do in the electric vehicle area, I think that's a growth trend for decade, 1.5 decades, 2 decades. So we feel good about that given our position.

I think also if you just look at the fourth quarter, I talked previously about our signal processing platform, high-performance signal processing platform based on our DSP, our A2B technology, road noise cancellation, A2B alone was up 70% in the year. So we've been talking about it a long time, but now the revenues are really coming home to roost in that area.

If I look at 1Q, typically, the automotive business for ADI is down seasonally, but we believe that it will be up. So the strength that we've been seeing coming through the fourth quarter here will continue into the first and beyond.

And if I look at just the areas that I feel really enthusiastic about, that we've been steering investment increasingly towards over the last 3 years or so. I've talked already about the electric vehicle markets. And we think about that as an opportunity from battery formation to battery deployment and battery disposal. So we're growing share in those key markets, and we continue to innovate in this space and create more (inaudible) between ourselves and our competition, as the problems that our customers are solving become more and more challenging. So we brought wireless BMS quite recently, which we've announced a partnership with GM on. But that is only the start. That is a new growth dimension for ADI in the automotive sector.

I've talked about infotainment already, A2B, road noise cancellation, and we managed to grow that business in 2020 despite the really, really compressed SAR.

The other thing I should point out is that we're still in the early innings of attaching our power franchise, the automotive, the critical applications in which we play. And that's all still ahead of us. Again, we feel good about that in areas like safety, the radar as well as vision-based safety systems. And just in the car, in general, power is an area where we've made excellent progress, I think, getting design-ins. Now we're turning them to revenue.

Operator

Our next question comes from Blayne Curtis from Barclays.

Blayne Peter Curtis - *Barclays Bank PLC, Research Division - Director & Senior Research Analyst*

I just want to revisit an answer on the comm. You talked about some longer-term drivers like O-RAN, but just kind of curious into January, I think, there's been a pause between kind of Phase 1, Phase 2 in China. I'm just kind of curious your perspective. It seems like it might be down a little bit in January. Just curious when you think comm could see a recovery in any perspective, and timing of China coming back?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Yes. [I'll just add] quickly. I think comms is down sequentially. I mean a big reason why comms is down sequentially in 1Q is the Huawei ban. Huawei was a low single-digit customer. Call it 2%, 3% of sales, they're going to be 0. So that will be a headwind into our first quarter. And you're right there, the timing of next round of China 5G deployments are TBD. I think when they do happen, it will be a great business for us, and we'll continue to grow in that market, but it's very hard to call when that market will turn back on, sometime likely in the first half of '21, but really unsure to pinpoint it today when that's going to be, given all the geopolitical tensions out there. I think Vince did a good job talking about how it's not just about China. The good thing as you move to '21 is more global, 5G. North America should start taking off. Europe, Japan, Korea is really starting to broaden out and less about China. China still will be the biggest market, but really global 5G deployment should do better year-on-year in '21.

Operator

And our last question comes from Ross Seymore from Deutsche Bank.

Ross Clark Seymore - *Deutsche Bank AG, Research Division - MD*

I just want to wrap up with a little bit of the linearity of demand. Can you just talk about the bookings that you've seen, have any of the concerns that your customers have had in the past about supply disruptions and all those sorts of things? It seems like those have gone away, given your commentary on channel inventory. But just wanted to get to kind of what your book-to-bill was? And how the linearity played out through the October order, please?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Yes, Ross, thanks for the question. So let me give you a couple of data points here. We started the quarter out strong in August, which was up from July, and then we had a pretty normal September. Bookings remain solid so far. I think where -- book-to-bill is at parity. We're going into the first quarter with very normal backlog coverage for our outlook. All of that is reflected in the guide that we have. I did make a comment about inventory in the channel. So maybe that's also worth making sure people understand that we are below our 7- to 8-week model, and then we're going to build ourselves back into that model over the course of 2021. So that should also provide a little bit of -- a little bit of tailwind as we go through 2021.

Michael C. Lucarelli - *Analog Devices, Inc. - Senior Director of IR*

And thanks, everyone, for joining us today this morning. A copy of the transcript will be available on our website and all available reconciliations. Any additional information can also be found in the quarterly results section of our IR website. Thanks for joining us and your continued interest in Analog Devices. Hope everyone have a good holiday.

Operator

This concludes today's Analog Devices conference call. You may now disconnect.
