Not for redistribution without written consent of Morgan Stanley

Morgan Stanley | RESEARCH

IDEA

September 23, 2026 04:01 AM GMT

Optical | North America

ECOC First Take: Full Steam Ahead

Versus OFC, consensus at ECOC was that NPO is coming in a 2028 time frame in parts of scale-up networks. Architectures are likely to evolve dramatically as technology advances, but optical content to continue to increase. Supply chain largely sold out; InP substrate seemingly the biggest bottleneck.

Key Takeaways

- Consistent with OFC, optical vendors are seeing continued strength in demand; not a surprise to investors at this point in the AI capex cycle.
- Incremental to the conversation from OFC, there is more confidence in NPO adoption, as Open CPX MSA introduces an ecosystem around solutions.
- OCS to still see growth, but Google to by far remain the largest implementation.
- CSCO and NOK being opportunistic with supply, but do not see major share shifts, with CIEN holding majority line system share.
- Prefer KEYS, but with early NPO likely to use external lasers (which then need to be higher power), see LITE/COHR continuing to have most attention.

This note is a first take summary of meetings we hosted at ECOC in Spain on 9/21 and 9/22. We will publish more detailed company specific takeaways from our meetings with CSCO, CIEN, COHR, KEYS, NOK (covered by Terence Tsui), TSEM, Lightmatter in the coming days.

Sunny skies in Spain as sun shines down on optical. ECOC has traditionally been a smaller, more technical trade show to OFC. However, with the optical trade now well discovered as content in AI networks grows, this event has garnered much more investor attention. **Themes brought up at the show are no surprise: optical content is growing faster than suppliers can produce it, many vendors are sold out for 12-18 months, and the exact form that CPO/NPO will take is still up for grabs.** However, versus 6 months ago, there was more recognition that NPO is going to happen starting in 2028, aided by the Open CPX MSA, which is seeking to build common parameters for optical engines that will allow a greater ecosystem to be built, making hyperscalers less concerned about adopting it than when NVDA's solution was the only option (NVDA is covered by Joe Moore). This isn't to minimize that there are still tremendous scaling / production / implementation challenges ahead in the coming years. It is just to say that there are enough suppliers working towards an open solution, and a growing need for optics and electronics to be closer to each other in scale-up, that a first generation of product is going to at least be trialed in 2028. There was also consensus that the architecture the first generation of product takes is unlikely to be the final format, as laser types, where those lasers are located, etc., are all subject to change in coming generations. This also means

MORGAN STANLEY & CO. LLC

Meta A Marshall
Equity Analyst
Meta.Marshall@morganstanley.com +1 212 761-0430

Antonio Jaramillo
Research Associate
Antonio.Jaramillo@morganstanley.com +1 212 761-4438

TELECOM & NETWORKING EQUIPMENT
North America
Industry View **In-Line**

Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.

competitive positioning today isn't a lock for the long term.

Common themes from meetings:

- **End goal: use optics to reduce power, cost, and latency, while improving bandwidth density, capacity, and the reliability of high-speed AI networks.** The above line is the stated goal of the Open CPX MSA, highlighting that while much is made about the large, growing opportunity for optics vendors, the end goal of hyperscalers is to find the most power and cost efficient solutions (e.g. the reason we have seen ZR pluggables proliferate, why network builders keep trying to make silicon photonics (CW) lasers have greater applications, the adoption of XPO). While we are not calling for margins to peak anytime soon, we are mindful that as opportunity multiplies, the form solutions take today may not be the form they always take (e.g. VCSELs could see a resurgence in short reach applications). Overall, this remains a positive for nearly everyone in the space, but we still prefer **KEYS** given less dependent on end destination, just that solutions are being trialed.
- **Everyone working towards an NPO solution.** While we still had one meeting where CPO/NPO was described as "inevitable, but not imminent", the general consensus is that hyperscalers are going to move towards NPO in coming years. This is different than at OFC, where there was a resistance to NVDA's CPO solution given concerns around vendor lock-in / closed ecosystem. However, **COHR**, with their PhotonLink announcement, addressed an upcoming challenge in that hyperscalers may want to move to open solutions, but don't necessarily have all the knowledge in house to assemble a solution from 6+ different vendors. PhotonLink gives customers an end-to-end solution for CPO/NPO, proving to them it can be done, and allowing customers to pick the pieces of the solution they want. We think COHR's broad based portfolio is particularly suited for this, with the company noting they have an LTA with a customer for an NPO solution that should begin ramping next year. While we did not meet with **LITE** at the show, we would note that they have talked about expecting an LTA announcement in coming months for NPO. While COHR/LITE are loudest, we would continue to note that many vendors are working on NPO solutions.
- **Mostly sold out, but not uniformly so.** In general, most component / system suppliers were sold out for the next 12-18 months, with InP substrate being the gating item (e.g. AXTI, Sumitomo). To the extent that more substrate comes available, or yields improve, there can be upside, but conditions remain tight amongst EMLs, CW lasers, pump lasers, and gold boxes, just to name the major categories. We would note that **CSCO** and **NOK** did talk to still having some availability, which we think allows them to be strategic in the near term around supply releases, but do not expect any meaningful share shifts.
- **OCS is coming, but likely smaller use cases with subsequent customers.** Google's use of OCS is well reported, with production ramp moving to LITE in coming years. Because of Google's success with the product, nearly every other hyperscaler / neocloud is trialing OCS. From what we heard at the show, there will be many more customers for OCS in the coming years. However, those use cases are likely to be smaller in scale than Google's

implementation (with one customer apparently canceling an implementation after fully qualifying a solution). We still see it as a margin accretive opportunity for LITE and COHR, but would expect LITE to accrue most of the value in the near term as supplying into the largest implementation.

Prefer those that benefit no matter the path. We have been very vocal in liking **KEYS**, seeing it as able to benefit from the growth in optics, no matter the implementation. We would tend to put **GLW** in that same boat as a beneficiary, no matter the implementation. However, we would still note, **LITE / COHR** are likely to remain fairly sold out in the foreseeable future as InP lasers remain in short supply, and first generation NPO/CPO products are likely to all use external lasers, meaning high powered lasers will see dramatic increases in demand in coming years. **CIEN** has multiple paths to success, but is dependent on InP supply chain loosening more in coming years to be able to materially outperform the target laid out (which is still not fully captured in price). We did not pick up on any reason for **CSCO** weakness today in meetings, as demand conditions remain strong, and supply chain being more in their control gives them continued opportunities to grow their revenue base from cloud customers.

Disclosure Section

The information and opinions in Morgan Stanley Research were prepared by Morgan Stanley & Co. LLC, and/or Morgan Stanley C.T.V.M. S.A., and/or Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V.. As used in this disclosure section, "Morgan Stanley" includes Morgan Stanley & Co. LLC, Morgan Stanley C.T.V.M. S.A., Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V. and their affiliates as necessary.

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/eqr/disclosures/webapp/generalresearch, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Meta A Marshall.

.

Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflictpolicies. A Portuguese version of the policy can be found at www.morganstanley.com.br

Important Regulatory Disclosures on Subject Companies

The analyst or strategist (or a household member) identified below owns the following securities (or related derivatives): Antonio Jaramillo - Arista Networks(common or preferred stock); Meta A Marshall - Corning Inc(common or preferred stock).

As of August 31, 2026, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in Morgan Stanley Research: Arista Networks, Axon Enterprise Inc, Ciena Corporation, Cisco Systems Inc, Coherent Corp, Corning Inc, F5 Inc, Keysight Technologies Inc, Lumentum Holdings Inc, Motorola Solutions Inc, Zebra Technologies Corporation.

Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of Axon Enterprise Inc.

Within the last 12 months, Morgan Stanley has received compensation for investment banking services from Axon Enterprise Inc, Coherent Corp, Zebra Technologies Corporation.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Arista Networks, Axon Enterprise Inc, Ciena Corporation, Cisco Systems Inc, Coherent Corp, Corning Inc, F5 Inc, Keysight Technologies Inc, Lumentum Holdings Inc, Motorola Solutions Inc, Zebra Technologies Corporation.

Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from Axon Enterprise Inc, Ciena Corporation, Cisco Systems Inc, Coherent Corp, Corning Inc, Lumentum Holdings Inc, Motorola Solutions Inc, Zebra Technologies Corporation.

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: Arista Networks, Axon Enterprise Inc, Ciena Corporation, Cisco Systems Inc, Coherent Corp, Corning Inc, F5 Inc, Keysight Technologies Inc, Lumentum Holdings Inc, Motorola Solutions Inc, Zebra Technologies Corporation.

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: Axon Enterprise Inc, Ciena Corporation, Cisco Systems Inc, Coherent Corp, Corning Inc, Lumentum Holdings Inc, Motorola Solutions Inc, Zebra Technologies Corporation.

Morgan Stanley & Co. LLC makes a market in the securities of Motorola Solutions Inc.

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

Global Stock Ratings Distribution

(as of August 31, 2026)

The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm.

For disclosure purposes only (in accordance with FINRA requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1555	42%	450	48%	29%	767	44%
Equal-weight/Hold	1577	43%	395	42%	25%	770	44%
Not-Rated/Hold	3	0%	1	0%	33%	1	0%
Underweight/Sell	559	15%	93	10%	17%	216	12%
Total	3,694		939			1754	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers

Important disclosures regarding any material conflict of interest that can reasonably be expected to have influenced Morgan Stanley Smith Barney LLC's choice of a third-party research provider or the subject company of a third-party research report, are available on the Morgan Stanley Wealth Management disclosure website at www.morganstanley.com/online/researchdisclosures.

For Morgan Stanley specific disclosures, you may refer to https://www.morganstanley.com/eqr/disclosures/webapp/generalresearch.

Each Morgan Stanley research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval is conducted by the same person who reviews the research report on behalf of Morgan Stanley. This could create a conflict of interest.

Other Important Disclosures

A member of Research who had or could have had access to the research prior to completion owns securities (or related derivatives) in the Cisco Systems Inc. This person is not a research analyst or a member of research analyst's household.

Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions.

Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.

Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.

Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (http://www.morganstanley.com/terms.html). By accessing and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (http://www.morganstanley.com/terms.html). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html). Please use the provided link to review the Terms and Conditions and Most Important Terms and Conditions for Morgan Stanley India Company Private Limited (https://www.morganstanley.com/assets/pdfs/about-us-global-offices/india/Terms_and_conditions.pdf) and the following link to review the audit report (https://ny.matrix.ms.com/eqr/research/webapp/researchdocs/

MSICPL_Morgan_Stanley_Research_Audit_Report.pdf).

If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The "Important Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.

Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A. located at Av. Brigadeiro Faria Lima, 3600, 6th floor, São Paulo - SP, Brazil; and is regulated by the Comissão de Valores Mobiliários; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V which is regulated by Comision Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Bank Asia Limited; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Bank Asia Limited, Singapore Branch (Registration number T14FC0118J); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited having Corporate Identification No (CIN) U22990MH1998PTC115305, regulated by the Securities and Exchange Board of India ("SEBI") and holder of licenses as a Research Analyst (SEBI Registration No. INH000001105); Stock Broker (SEBI Stock Broker Registration No. INZ000244438), Merchant Banker (SEBI Registration No. INM000011203), and depository participant with National Securities Depository Limited (SEBI Registration No. IN-DP-NSDL-567-2021) having registered office at Altimus, Level 39 & 40, Pandurang Budhkar Marg, Worli, Mumbai 400018, India; Telephone no. +91-22-61181000; Compliance Officer Details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: tejarshi.hardas@morganstanley.com; Grievance officer details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: msic-compliance@morganstanley.com. Morgan Stanley India Company Private Limited (MSICPL) may use AI tools in providing research services. All recommendations contained herein are made by the duly qualified research analysts; in Germany and the European Economic Area where required by Morgan Stanley Europe S.E., authorised and regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, disseminates in the UK research that it has prepared, and research which has been prepared by any of its affiliates, only to persons who (i) are investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"); (ii) are persons who are high net worth entities falling within Article 49(2)(a) to (d) of the Order; or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, as amended) may otherwise lawfully be communicated or caused to be communicated. RMB Morgan Stanley Proprietary Limited is a member of the JSE Limited and A2X (Pty) Ltd. RMB Morgan Stanley Proprietary Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by

FirstRand Limited. Morgan Stanley Research is disseminated in Canada by Morgan Stanley Canada Limited and Morgan Stanley Wealth Management Canada Inc., members of the Canadian Investment Regulatory Organization (CIRO). The information in Morgan Stanley Research is being disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital Market Authority in the Kingdom of Saudi Arabia, and is directed at Sophisticated investors only.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA) or by Morgan Stanley & Co. International plc (ADGM Branch), regulated by the Financial Services Regulatory Authority Abu Dhabi (the FSRA), and is directed at Professional Clients only, as defined by the DFSA or the FSRA, respectively. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria of a Professional Client. A distribution of the different MS Research ratings or recommendations, in percentage terms for Investments in each sector covered, is available upon request from your sales representative.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.

As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms. Comments and recommendations stated here are general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.

The trademarks and service marks contained in Morgan Stanley Research are the property of their respective owners. Third-party data providers make no warranties or representations relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P.

Morgan Stanley Research, or any portion thereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.

Indicators and trackers referenced in Morgan Stanley Research may not be used as, or treated as, a benchmark under Regulation EU 2016/1011, or any other similar framework.

The issuers and/or fixed income products recommended or discussed in certain fixed income research reports may not be continuously followed. Accordingly, investors should regard those fixed income research reports as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or individual fixed income products.

Morgan Stanley may hold, from time to time, material financial and commercial interests regarding the company subject to the Research report.

Registration granted by SEBI and certification from the National Institute of Securities Markets (NISM) in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

References to any prediction market or event contract do not constitute an offer, solicitation, recommendation, or endorsement to participate in any such market or contract. Morgan Stanley Research may not be distributed or made available in any jurisdiction where such distribution would be unlawful or otherwise prohibited by applicable law.

INDUSTRY COVERAGE: Telecom & Networking Equipment

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/22/2026)
Meta A Marshall		
Arista Networks (ANET.N)	O (10/31/2023)	$205.19
Axon Enterprise Inc (AXON.O)	O (12/03/2024)	$459.32
Ciena Corporation (CIEN.N)	E (10/10/2025)	$368.56
Cisco Systems Inc (CSCO.O)	O (04/08/2024)	$106.44
Coherent Corp (COHR.N)	E (12/13/2023)	$310.39
Corning Inc (GLW.N)	E (06/13/2024)	$159.69
F5 Inc (FFIV.O)	E (04/12/2022)	$453.33
Keysight Technologies Inc (KEYS.N)	O (07/13/2026)	$347.32
Lumentum Holdings Inc (LITE.O)	E (05/12/2021)	$945.67
Motorola Solutions Inc (MSI.N)	O (12/17/2025)	$456.70
Zebra Technologies Corporation (ZBRA.O)	E (12/02/2024)	$361.61

Stock Ratings are subject to change. Please see latest research for each company.
* Historical prices are not split adjusted.

© 2026 Morgan Stanley

