AMBIQ MICRO, INC.

CHARTER OF THE AUDIT COMMITTEE
OF THE BOARD OF DIRECTORS

(Adopted November 5, 2026)

PURPOSE

The purpose of the Audit Committee (the "***Committee***") of the Board of Directors (the "***Board***") of Ambiq Micro, Inc. (the "***Company***") is to assist the Board in fulfilling its oversight responsibilities with respect to:

- The Company's accounting and financial reporting processes, systems of internal control over financial reporting and audits of financial statements, as well as the quality and integrity of the Company's financial statements and reports;

- The qualifications, independence and performance of the registered public accounting firm or firms engaged as the Company's independent outside auditors for the purpose of preparing or issuing an audit report or performing other audit, review or attest services (the "***Auditors***");

- The design, implementation and performance of the Company's internal audit function, when applicable;

- The Company's compliance with legal and regulatory requirements, including compliance with ethical standards adopted by the Company; and

- The review and assessment of the Company's risk management, risk assessment and major risk exposures with respect to financial, accounting, operational, tax, privacy and cybersecurity and information technology risks, as well as risks arising from the Company's use and development of artificial intelligence.

The Committee will also prepare the report required by the rules of the Securities and Exchange Commission (the "***SEC***") to be included in the Company's annual proxy statement.

In furtherance of its purpose, the Committee will endeavor to maintain and foster an open avenue of communication among the Committee and the Auditors, the Company's financial management and, when applicable, the internal auditors (or other personnel or service providers responsible for the internal audit function).

COMPOSITION

1. **Membership; Qualifications**. The Committee shall consist of at least three members of the Board, subject to an election by the Company to rely on any available exception or transition period. Each member of the Committee shall be determined by the Board to be "independent" under the rules of the New York Stock Exchange (the "***NYSE***") and meet the criteria for independence set forth in Rule 10A-3(b)(1) of the Securities Exchange Act of 1934, as amended (the "***Exchange Act***"), subject to an election by the Company to rely on any available transition period. No member of the Committee may serve concurrently on the audit committee of more than two other public companies, in addition to that of the Company, unless the Board (i) determines that such simultaneous service would not impair the ability of such member to effectively serve on the Committee and (ii) discloses such determination either on or

through the Company's website or in the annual proxy statement. Each member of the Committee must be "financially literate," as determined by the Board in its business judgment (or must become financially literate within a reasonable period after his or her appointment). In addition, at least one member of the Committee must have accounting or related financial management expertise, as the Board interprets such qualification in its business judgment.

At least one member of the Committee must have past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in the individual's financial sophistication, including being or having been a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities.

It is also expected that at least one member of the Committee will be an "audit committee financial expert" as defined by the applicable rules of the SEC. This person may be the same person with the accounting or related financial management expertise described in the preceding paragraph.

2. **Appointment and Removal**. The members of the Committee shall be appointed by the Board upon the recommendation of the Nominating and Corporate Governance Committee. Members shall serve until their successors are duly elected and qualified or their earlier resignation, removal, retirement, disqualification or death. The Board may remove or replace any member of the Committee, with or without cause.

3. **Chairperson**. The Board may designate a chairperson of the Committee (the "***Chairperson***"). In the absence of that designation, the Committee may designate the Chairperson by majority vote of the Committee members, provided that the Board may replace any Chairperson designated by the Committee at any time. The Chairperson will chair all regular sessions of the Committee. In the absence of the Chairperson, the Committee shall select another member to preside.

The Chairperson shall have the delegated authority to act on behalf of the Committee in connection with (a) the negotiation and execution of engagement letters of the Auditors, legal counsel or other advisers to be retained by the Committee and (b) as may otherwise be determined by the Committee. In addition, unless otherwise provided by the Committee, the Chairperson (provided such Chairperson is independent) is authorized to pre-approve any audit and permitted non-audit services as necessary. Any such pre-approvals made by the Chairperson shall be presented to the full Committee at its next scheduled meeting.

4. **Subcommittees; Delegation Authority**. The Committee may form subcommittees composed of one or more of its members for any purpose that the Committee deems appropriate and may delegate to such subcommittees such power and authority as the Committee deems appropriate.

MEETING OPERATIONS AND PROCEDURES; ATTENDANCE

The Committee shall meet at least quarterly, or more frequently if it deems appropriate to perform its duties and responsibilities under this charter. The same procedural rules concerning notice of meetings, actions by unanimous consent or telephonic meetings and meetings held by other means of remote communication, and other procedural matters, shall apply to Committee meetings as apply to meetings of the Board under the Company's bylaws and other governing documents.

A majority of the Committee membership will be a quorum for the transaction of business unless the Committee shall consist of two members, in which event one member shall constitute a quorum. The action of a majority of those present at a meeting at which a quorum is present will be the act of the

Committee. The Committee will maintain written minutes of its meetings, which shall be filed with the minutes of Board meetings. Further, the Chairperson (or any other member of the Committee designated by the Committee to make such report) will report regularly to the Board (i) on Committee actions and on the fulfillment of the Committee's duties under its charter, including following meetings and written resolutions of the Committee and (ii) with respect to any issues that arise with respect to the quality or integrity of the Company's financial statements, the Company's compliance with legal or regulatory requirements, the qualification, performance and independence of the Auditors or the internal audit function.

As part of its goal to foster open communication, the Committee shall periodically meet separately with each of management, the Auditors and the internal auditors (or other personnel or service providers responsible for the internal audit function) to discuss any matters that the Committee or each of these groups believe would be appropriate to discuss privately. In addition, the Committee should meet with the Auditors and management quarterly to review the Company's financial statements in a manner consistent with that outlined under Responsibilities – Financial Reporting Processes in this charter.

The Chairperson, in consultation with the Committee members and members of management, will determine the frequency and length of Committee meetings and develop the Committee's agenda. All non-management directors that are not members of the Committee may attend meetings of the Committee but may not vote. The Committee may also exclude from its meetings any persons it deems appropriate in order to carry out its responsibilities.

AUTHORITY TO RETAIN ADVISORS AND OTHER RESOURCES

1. **Authority to Retain Auditors and Advisors**. The Committee may study or investigate any matter of interest or concern that the Committee deems appropriate and shall have the authority to meet with and seek any information it requires from the Auditors or employees, officers and directors of the Company. The Committee will also have the authority, in its sole discretion, to retain and terminate, at the Company's expense, counsel or any outside advisors it deems necessary to perform its duties and oversight responsibilities. The Committee may also utilize the services of the Company's regular internal and/or external counsel or other advisors to the Company.

The Committee shall be directly responsible for the appointment, compensation, retention, oversight and, when necessary, termination of the Auditors. The Committee shall inform the Auditors that they must report directly to the Committee. The Company shall provide appropriate funding, as determined by the Committee, for the payment of compensation to the Auditors and independent counsel and other advisors engaged by the Committee, as well as funding for the payment of ordinary administrative expenses that, as determined by the Committee, are necessary or appropriate in carrying out its duties.

2. **Access to Company Resources**. Each member of the Committee shall have full access to the Company's internal auditors (or other personnel or service providers responsible for the internal audit function), the Board, corporate executives, the Auditors, and all books, records, facilities and other personnel of the Company as deemed necessary or appropriate by any member of the Committee to discharge such member's responsibilities hereunder.

3. **Responsibility of Management and the Auditors**. Notwithstanding the foregoing, the Committee is not responsible for certifying the Company's financial statements or endorsing the Auditors' report. The fundamental responsibility for the Company's financial statements and disclosures rests with management while the Auditors are responsible for conducting the annual audit in accordance with the standards of the Public Company Accounting Oversight Board ("***PCAOB***").

RESPONSIBILITIES

The following functions are expected to be the common recurring activities of the Committee in carrying out its responsibilities. These functions should serve as a guide with the understanding that the Committee may carry out additional functions and adopt additional policies and procedures as may be required or appropriate in light of changing business, legislative, regulatory, legal or other conditions. The Committee may also carry out any other responsibilities and duties delegated to it by the Board from time to time.

Financial Reporting Processes

1. **Audited Financial Statement Review**. The Committee will review and discuss with management and the Auditors, upon completion of the audit, the financial statements proposed to be included in the Company's Annual Report on Form 10-K to be filed with the SEC, including the disclosures under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations." Following this review, the Committee will recommend whether or not such financial statements should be included in the Company's Annual Report on Form 10-K.

2. **Annual Audit Results**. The Committee will review with management and the Auditors, the results of the annual audit, a draft of the Auditors' report and the matters required to be communicated to the Committee by the Auditors under applicable standards adopted by the PCAOB and approved by the SEC from time to time, including any critical audit matters. In addition, the Committee will review and discuss with management and the Auditors (a) all critical accounting policies and practices to be used in the annual audit, (b) all alternative treatments of financial information within U.S. generally accepted accounting principles ("***GAAP***") for material items that have been discussed with management, ramifications of the use of such alternative disclosures and treatments on the Company's financial statements, and the treatment preferred by the Auditors and (c) other material written communications between the Auditors and management, such as any management letter or schedule of unadjusted differences.

3. **Quarterly Results Review**. The Committee will review and discuss with management and the Auditors, as appropriate, the quarterly financial statements, including the disclosures under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations," and the results of the Auditors' review of such financial statements, prior to public disclosure of quarterly financial information, if practicable, or filing with the SEC of the Company's Quarterly Report on Form 10-Q, and any other matters required to be communicated to the Committee by the Auditors under applicable PCAOB standards.

4. **Earnings Press Releases**. The Committee will discuss with management and the Auditors, as appropriate, earnings press releases as well as financial information and earnings guidance provided to analysts and rating agencies, including the use of pro forma, non-GAAP or adjusted information, which discussions may be general discussions of the type of information to be disclosed and the type of presentation to be made and, with respect to financial information and earnings guidance provided to analysts and ratings agencies, need not take place in advance of each earnings press release or each instance in which the Company may provide such financial information or earnings guidance to analysts and ratings agencies.

5. **Accounting Principles and Policies**. The Committee will review with management and the Auditors, as appropriate, major issues that arise regarding accounting principles and financial statement presentation, including any significant changes in the Company's selection or application of

accounting principles, significant regulatory or accounting initiatives or developments, as well as off-balance sheet structures, that may have a material impact on the Company's financial statements.

6. **Management and Auditor Analyses**. The Committee will review any analyses prepared by management or the Auditors setting forth significant financial reporting issues and judgments made in connection with the preparation of the financial statements, including analyses of the effects of alternative GAAP methods on the financial statements.

7. **National Office Communications**. The Committee will review with the Auditors, as appropriate, any communications between the audit team and the Auditors' national office with respect to auditing or accounting issues presented by the engagement.

8. **Disagreements Between Auditors and Management**. The Committee will review with management and the Auditors, any disagreements between management and the Auditors, whether or not resolved, regarding financial reporting, accounting practices or policies or other matters, that individually or in the aggregate could be significant to the Company's financial statements or the Auditors' report, and management's response, if any, and will resolve any conflicts or disagreements regarding financial reporting.

9. **Management Cooperation with Audit**. The Committee will review with the Auditors any audit problems or difficulties the Auditors encountered in the course of the audit work, including any restrictions on the scope of their activities or access to required records, data and information.

10. **Proposed Accounting Adjustments**. The Committee will review with the Auditors any accounting adjustments that were noted or proposed by the Auditors but were "passed" (as immaterial or otherwise).

11. **Management Letters**. The Committee will review with the Auditors any "management" letter, schedule of unadjusted differences or "internal control" letter issued, or to the extent practicable, proposed to be issued by, the Auditors and management's response, if any, to such letter or schedule, as well as any additional material written communications between the Auditors and management.

12. **Internal Control Over Financial Reporting**. The Committee will discuss and review with management and the Auditors, as appropriate, the scope, adequacy and effectiveness of the Company's internal control over financial reporting and any special audit steps adopted in the event of material control deficiencies.

Oversight of Auditors

13. **Evaluation and Retention of Auditors**. The Committee will, at least annually, evaluate the performance, qualifications and independence of the Auditors (and should take into account the views of management and the internal auditors (or other personnel responsible for the internal audit function, when applicable). This evaluation should include the review and evaluation of the lead partner of the Auditors. In conducting this review and evaluation, the Committee will obtain and review the reports described in paragraphs 14 and 17 under "Responsibilities – Oversight of Auditors" in this charter. Based on this review and evaluation, the Committee will determine whether to retain, or terminate, the engagement of the existing Auditors, or appoint and engage a different independent registered public accounting firm and should present the Committee's conclusions with respect to the Auditors to the Board. The Committee will recommend the selection of the Auditor for ratification by the stockholders, if appropriate in the Committee's discretion.

14. **Communications Regarding Auditor Independence**. Prior to engagement of any prospective Auditors and at least annually, the Committee will receive and review a written disclosure by the prospective Auditors or existing Auditors, as applicable, of all relationships between the prospective Auditors or existing Auditors, as applicable, or their affiliates, and the Company, or persons in financial oversight roles at the Company, that may reasonably be thought to bear on independence, and will discuss with the prospective Auditors or existing auditors, as applicable, the potential effects of such relationships on the independence of the prospective Auditors, consistent with the applicable rules of the PCAOB.

15. **Approval of Audit Services**. The Committee will determine and approve engagements of the Auditors, prior to commencement of such engagements, to perform all proposed audit, review and attest services, including the scope of and plans for the audit, the adequacy of staffing, and the compensation to be paid, at the Company's expense, to the Auditors, which approval may be pursuant to preapproval policies and procedures established by the Committee consistent with applicable laws, including the delegation of preapproval authority to one or more independent Committee members so long as any such preapproval decisions are presented to the Committee at the next scheduled meeting.

16. **Approval of Non-Audit Services**. The Committee will determine and approve engagements of the Auditors, prior to commencement of such engagements (subject to the availability of exceptions available under applicable laws for *de minimis* aggregate amounts of permissible non-audit services), to perform any proposed permissible non-audit services, including the scope of the services and the compensation to be paid, at the Company's expense, to the Auditors, which approval may be pursuant to preapproval policies and procedures established by the Committee consistent with applicable laws, including the delegation of preapproval authority to one or more independent Committee members so long as any such preapproval decisions are presented to the full Committee at the next scheduled meeting.

17. **Report from Auditors**. At least annually, the Committee will obtain and review a report by the Auditors describing that firm's internal quality-control procedures, any material issues raised by the firm's most recent internal quality-control review or peer review or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, with respect to one or more independent audits performed by that firm, as well as any steps taken to address the issues raised.

18. **Audit Partner Rotation**. The Committee will monitor the rotation of the partners of the Auditors on the Company's audit engagement team as required by applicable laws and should consider periodically whether, in order to assure continuing auditor independence, there should be a regular rotation of Auditors.

19. **Employees and Former Employees of Auditors**. The Committee will set clear policies regarding the hiring by the Company of individuals employed or formerly employed by the Auditors.

Internal Audit Function

20. **Internal Audit Function**. The Committee will oversee the Company's internal audit function, which may be outsourced to a third-party service provider. As part of this oversight responsibility, the Committee will review and discuss with management and, if appropriate, the Auditors, the responsibilities, budget and staffing of the Company's internal audit function. In addition, the Committee will review any significant reports prepared by the Company's internal auditors (or other personnel or service providers responsible for the internal audit function), as well as management's responses.

Legal, Regulatory and Ethical Oversight

21. **Complaint Procedures**. The Committee will establish procedures for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters.

22. **Correspondence with Regulators/Review of Certain Legal Matters**. The Committee will consider and review with management, the Auditors, outside counsel, as appropriate, and any special counsel, separate accounting firm or other consultants and advisors as the Committee deems appropriate, any correspondence with regulators or governmental agencies and any published reports that raise material issues regarding the Company's financial statements or accounting policies as well as any other legal matters that have been brought to the Committee's attention and that could have a significant impact on the Company's financial statements.

23. **Compliance**. The Committee will review management's system to monitor compliance with the Company's programs and policies designed to ensure adherence to applicable laws, as well as to its Code of Business Conduct and Ethics. The Committee will review and periodically update the Company's Code of Business Conduct and Ethics and review any significant violations thereof and requests of waivers thereof by officers (as that term is defined in Rule 16a-1(f) under the Exchange Act) and directors.

24. **Related Party Transactions**. Unless otherwise approved or ratified pursuant to the Company's Related Person Transaction Policy, the Committee will review, approve or ratify and oversee all transactions between the Company and any Related Person that are required to be disclosed pursuant to Item 404(a) of Regulation S-K ("***Item 404(a)***"). "***Related Person***" shall have the meaning given to such term in Item 404(a), as amended from time to time. Develop and oversee policies and procedures for the review, approval and/or ratification of such transactions. Discuss with the Auditors their evaluation of the Company's identification of, accounting for, and disclosure of its relationship with related parties as set forth under the standards of the PCAOB.

25. **Risk Assessment and Management**. The Committee will discuss with management and, as appropriate, the Auditors, the Company's guidelines and policies with respect to risk assessment and risk management, including with respect to financial, accounting, operational, tax, privacy and cybersecurity and information technology risks, as well as risks arising from the Company's use and development of artificial intelligence, and the steps taken by management to monitor and control these exposures.

26. **Attorneys' Reports**. The Committee will receive, review and discuss with the Company's Chief Executive Officer and Chief Financial Officer attorneys' reports of evidence of material violations of securities laws and breaches of fiduciary duty and similar violations of U.S., state or other applicable law.

27. **Investigations**. The Committee will investigate any matter brought to the attention of the Committee within the scope of its duties if, in the judgment of the Committee, such investigation is necessary or appropriate.

28. **Investment Policy**. The Committee will review with management the Company's investment philosophy and policies, including management of investment risk and applicable policies pertinent to the Company's investment portfolio.

29. **Cybersecurity**. The Committee will periodically review and discuss with the Company's Chief Information Security Officer material risks relating to data privacy, technology and information security, including cybersecurity, threats and back-up of information systems and the Company's processes for assessing, identifying, and managing such risks, as well as the Company's internal controls and disclosure controls and procedures relating to cybersecurity incidents.

30. **Artificial Intelligence**. The Committee will periodically review and discuss with the appropriate members of the Company's management any material risks relating to the company's use and development of artificial intelligence, including machine learning, generative artificial intelligence and agentic artificial intelligence, the Company's disclosure of the risks and opportunities relating to the Company's use of artificial intelligence and the steps the Company has taken to assess, identify and manage any such material risks.

31. **Treasury Operations**. The Committee will review treasury operations, including investment policies, financial derivatives and hedging activities.

Other Matters

32. **Proxy Report**. The Committee will prepare the Audit Committee report required by the rules of the SEC to be included in the Company's annual proxy statement.

33. **Committee Evaluation and Charter Review**. The Committee will review and evaluate its performance, at least annually, including by reviewing the compliance of the Committee with this charter. In addition, the Committee will periodically review and reassess the adequacy of this charter and recommend to the Board any proposed changes to this charter that the Committee considers necessary or appropriate. The Committee may conduct such evaluations and reviews in such manner as it deems appropriate.