RBA Equity - Investment Memo (LONG) March 16th, 2026

**AMBQ Micro, Inc. (AMBQ)** Entry Price: $26.25

**This contains backwards looking information. This pitch was prepared and internally stored on March 16th, 2026 and is now being prepared to be publicized as of May 17th, 2026*

## EXECUTIVE SUMMARY

Ambiq Micro is a fabless US semiconductor company that designs ultra-low-power systems-on-chip (SoCs) for battery-powered edge AI devices, built on its proprietary subthreshold power optimized technology (SPOT). Shares trade at ~$26 following a July 2025 IPO at $24 and a January 2026 follow-on at $31. AMBQ is a thinly covered micro-cap, and the FY25 headline revenue decline (4.7% YoY to $72.5M) triggered an unwarranted selloff that does not reflect the underlying business. **I recommend a LONG position with a 12-month price target of $37 (+38.5%) on three pillars:**

1) **FY25 headline miss is a misread of a deliberate strategic China exit:** Mainland China declined from 41% of FY25 net sales to 9% (Customer D revenue from $31.2M to $6.5M), a deliberate strategic exit. Non-China revenue grew sharply, three blue-chip Western customers (Google, Garmin, WHOOP) now drive roughly 93% of revenue, and non-GAAP gross margin expanded from 32.9% (Q2 24) to 45.5% (Q4 25). Given the micro-cap profile and thin sell-side coverage, the headline miss triggered a selloff that is not justified.

2) **Apollo5 is driving a structural mix shift from sensor-hub to main-processor design wins:** I went through teardowns to confirm Apollo510 as the main processor in WHOOP 5.0 (displacing incumbent Maxim silicon), COROS PACE Pro/APEX 4, and Suunto Race 2/Vertical 2, and as a new coprocessor socket in Google Pixel Watch 4 (displacing incumbent NXP). Main-processor wins generate materially higher content per device, and the next-generation Atomiq platform extends SPOT into higher-performance edge AI workloads. Management confirmed on the Q4 25 call (March 5, 2026) that "customers upgrading to Apollo5" was a Q4 revenue driver.

3) **H2 2026 product launches at confirmed customers drive a FY26 revenue beat:** AMBQ's 16-36 week PO lead times mean chip orders for H2 2026 launches flow through H1 2026 revenue. The Pixel Watch 5 cycle, Fitbit franchise refresh including Fitbit Air, the Garmin CIRQA band, continued WHOOP 5.0 ramp, and full-year volume on the 2H 25 Apollo510 design wins drive modeled FY26E revenue of $107.5M versus consensus of $100.8M, a +6.6% beat.

## COMPANY SNAPSHOT

| Metric | 2025A | 2026E | Notes |
|---|---|---|---|
| Revenue (*$K)* | 72,514 | 107,462 | E +48.2% YoY |
| Gross Margin | 44.3% | 46.6% | Conservative (mgmt) |
| EBIT | (39,543) | (57,465) | Losses widen |
| BF EV/Sales | 4x | 5.5x | |
| EPS | ($2.30) | ($2.57) | |

**Estimated YoY customer growth: Customer E (Google) +61%, Customer F (Garmin) +26%, Customer G (WHOOP) +85%, Other (Suuntos/COROS/new entrants) +105%, China -50%*

## EXPANDED THESIS

1) **FY25 headline miss is a misread of a deliberate strategic China exit**

FY25 net sales of $72.5M (4.7% YoY decline) reflects management's deliberate exit from low-margin Mainland China customers, not business deterioration. Per the 10-K, Customer D, a China customer and the single largest customer in FY24 at 41% of net sales ($31.2M), collapsed to 9% of net sales ($6.5M) in FY25 and is modeled to decline a further 50% to $3.3M in FY26 as the legacy China business runs off. Concurrently the Western customer base expanded sharply: Customer E (Google, inferred via Fitbit teardown precedent and the Pixel Watch 4 teardown) grew +63% to $26.1M; Customer F (Garmin, inferred via teardown) grew +15% to $21.0M; Customer G (WHOOP, confirmed via TechInsights teardown of the WHOOP 5.0) grew +91% to $14.5M from below the disclosure threshold. Non-GAAP gross margin expanded from 32.9% in Q2 24 to 45.5% in Q4 25 because the exited Chinese revenue carried the worst margins in the portfolio. AMBQ is a micro-cap with thin sell-side coverage; with little analyst infrastructure to contextualize the print, a headline revenue decline drove a selloff disconnected from a business that replaced its largest customer with three blue-chip Western OEMs while expanding gross margin by roughly 13 points in 18 months.

2) **Apollo5 is driving a structural mix shift from sensor-hub to main-processor design wins**

AMBQ historically earned low content per device as a sensor-hub coprocessor running alongside main processors from NXP, Maxim, or STMicro. Apollo510, launched late 2024, is now winning main-processor roles that I infer must generate higher revenue per device. Independent teardown evidence: TechInsights' WHOOP 5.0 Deep Dive Teardown (September 2025) confirmed an Ambiq ARM Cortex-M4 MCU with BLE 5.0 at a $2.67 ASP as the sole main processor, directly displacing the Maxim MAX32652 used in WHOOP 4.0, with WHOOP attributing "10x more power efficiency" to the new device, the core SPOT value proposition. COROS publicly names Apollo510 in PACE Pro marketing; Android Central confirmed Apollo510 as the main processor in COROS APEX 4 (October 2025); multiple independent reviews and FCC filings confirm Apollo510 as the SoC in Suunto Race 2 (August 2025) and Vertical 2 (September 2025). Embedded Computing Design's Pixel Watch 4 teardown (February 2026) confirmed Apollo510 as a discrete coprocessor displacing the NXP Cortex-M33 used in Pixel Watch 2 and 3, a competitive socket win at a top-three customer. Beyond the current Apollo5 cycle, AMBQ has extended SPOT to TSMC's 12nm FinFET process for its next-generation Atomiq platform, with silicon validated in-lab as disclosed on March 5, 2026, operating at the lowest voltage in company history. Atomiq is the strategic extension of the moat: it pushes SPOT beyond ultra-low-power wearables into higher-performance edge AI workloads (smart glasses, always-on inference, and adjacent markets), opening a materially larger addressable market over the 2027-plus horizon while the same subthreshold advantage that won WHOOP, COROS, Suunto, and the Pixel Watch socket carries forward. The disconfirming case is Garmin, where the company retained an NXP main processor with Apollo3 as a sensor hub across the Fenix 7 and 8 generations, causing Customer F's attach rate to decline from 1.03% to 0.89% in FY25, which is why I model Garmin conservatively and does not depend on it inflecting. On the Q4 25 call, CEO Esaka named "customers upgrading to Apollo5 for more advanced edge AI functionality" as a Q4 sequential revenue driver, direct management confirmation of the mix-shift mechanism.

3) **H2 2026 product launches at confirmed customers drive a FY26 revenue beat**

AMBQ discloses 16-36 week purchase order lead times, so chip orders for H2 2026 end-customer launches flow through H1 2026 revenue. The FY26E revenue build aggregates to $107.5M against Bloomberg consensus of $100.8M, a +6.6% beat, with the variant view concentrated in WHOOP and the Apollo510 design-win cohort. Customer G (WHOOP) is modeled at $26.8M (+85% YoY): WHOOP 5.0 launched May 8, 2025 with a free-upgrade program distributing devices to

existing 12-month-plus members, and the company's 103% subscription growth, expansion across 56 markets, and active IPO preparation support continued hardware volume. Customer E (Google) is modeled at $42.0M (+61%) on the Pixel Watch 5 cycle (expected August 2026 per the annual Made-by-Google cadence), continued Fitbit franchise refresh including the Fitbit Air, and full-year Pixel Watch 4 volume. Customer F (Garmin) is modeled at $26.4M (+26%) via an attach-rate recovery to 1.00% (from 0.89%) driven by the anticipated mid-2026 CIRQA band, inferred to use AMBQ given the screenless WHOOP-style form factor, the competitor precedent of COROS and Suunto both selecting Apollo510, third-party reviewer commentary that Suunto's Apollo510 architecture outperforms Garmin's NXP architecture, and AMBQ's existing qualified-supplier status at Garmin. The Other bucket (Suunto/COROS) grows +105% to $8.9M on the first full-year volume of the 2H 25 Apollo510 launches. Each of these is a confirmed AMBQ relationship with a dated launch catalyst, and the chip-order timing under disclosed lead times occurs in Q1-Q2 2026.

## CATALYSTS

- **Early May 2026; Q1 26 earnings:** First post-IPO Q1 print and first clean read on whether the Apollo510 ramp and customer mix are tracking ahead of consensus.
- **Mid-2026; Garmin CIRQA launch:** Determines whether Customer F attach rate recovers toward 1.00%; binary upside lever and a direct test of the sensor-to-processor inference.
- **August 2026; Pixel Watch 5 launch:** Customer E volume confirmation; teardown within weeks reveals chip role and content per device.
- **2H 2026; WHOOP IPO signal or S-1 filing:** Likely confirms Customer G identity and discloses hardware shipment volumes, the single biggest catalyst for Customer G visibility.

## KEY RISKS

- **Garmin attach rate continues to deteriorate:** Customer F attach rate fell from 1.03% (FY24) to 0.89% (FY25) on the NXP-main / AMBQ-sensor architecture. If CIRQA does not use AMBQ or Garmin's next-gen platform drops AMBQ, Customer F is modeled too high and could shrink rather than grow.
- **WHOOP ramp is partly a one-time surge:** FY25 Customer G volume was elevated by the WHOOP 5.0 free-upgrade distribution. If this does not repeat in FY26 absent a WHOOP 6.0, hardware volume could be materially lower than the +85% modeled. Unit math ($14.5M / $2.67 ASP, roughly 5.4M units in FY25) is hard to fully reconcile with member growth alone and relies on enterprise and international channel volume that is not publicly trackable.
- **OpEx wall and widening net loss:** The model shows net loss widening to ($53.2M) from ($36.5M) as total OpEx steps up to $107.6M. This is partly a function of deliberately conservative gross-margin assumptions in the model (FY26E modeled at 44.5% per quarter versus a Q4 25 exit run-rate of 45.5%); actual margins running at management's trajectory would narrow the loss. This creates sentiment risk around quarterly prints, with operating leverage not appearing until FY27.

**APPENDIX BELOW**

**CONSENSUS**

1) Headline | 2) Headline Growth | 3) Company-Specific

| 3 Months Ending | Q4 2025 Act 12/31/2025 | Q1 2026 Est 03/31/2026 | # | Q2 2026 Est 06/30/2026 | # | Q3 2026 Est 09/30/2026 | # | Q4 2026 Est 12/31/2026 | # |
|---|---|---|---|---|---|---|---|---|---|
| 11) EPS, Adj+ | -0.320 | -0.355 | 4 | -0.418 | 4 | -0.460 | 4 | -0.455 | 4 |
| 12) EPS, GAAP | -0.580 | -0.700 ↓ | 3 | -0.780 ↓ | 3 | -0.863 ↓ | 3 | -0.900 ↓ | 3 |
| 13) Revenue | 20.744M | 21.500M | 5 | 25.680M | 5 | 27.180M | 5 | 26.480M | 5 |
| 14) Gross Margin % | 45.500 | 44.500 | 3 | 45.167 | 3 | 45.633 | 3 | 45.600 | 3 |
| 15) Operating Income (EBIT) | -11.962M | -8.620M | 5 | -9.652M ↑ | 5 | -10.456M ↑ | 5 | -10.546M ↑ | 5 |
| 16) EBITDA | -10.315M | -7.080M | 3 | -8.487M | 3 | -9.307M | 3 | -8.687M | 3 |
| 17) Pre-Tax Profit | -10.660M | -7.183M | 3 | -8.840M | 3 | -9.403M | 3 | -9.340M | 3 |
| 18) Net Income Adj+ | -5.861M | -6.635M | 4 | -7.985M | 4 | -8.723M | 4 | -8.700M | 4 |
| 19) Net Income, GAAP | -10.679M | -12.025M | 4 | -13.500M | 4 | -14.600M | 4 | -14.825M | 4 |
| 20) Net Debt | -139.597M | -208.000M | 1 | -193.000M | 1 | -182.000M | 1 | -173.000M | 1 |
| 21) BPS | 8.869 | 11.320 | 1 | 10.710 | 1 | 10.060 | 1 | 9.410 | 1 |
| 22) CPS | -0.222 | -0.437 | 3 | -0.450 | 3 | -0.473 | 3 | -0.453 | 3 |
| 23) DPS | 0.000 | | | | | | | | |
| 24) Return on Equity % | | -16.445 | 2 | 34.030 | 2 | -18.510 | 2 | -18.455 | 2 |
| 25) Return on Assets % | | -12.700 | 1 | -14.000 | 1 | -16.300 | 1 | -17.500 | 1 |
| 26) Depreciation | 1.647M | 1.575M | 2 | 1.525M ↓ | 2 | 1.525M ↓ | 2 | 1.475M ↓ | 2 |
| 27) Free Cash Flow | -4.295M | -13.000M | 1 | -12.600M | 1 | -14.400M | 1 | -9.300M | 1 |
| 28) CAPEX | -182.000k | -1.725M | 2 | -3.205M | 2 | -4.080M | 2 | -1.955M | 2 |
| 29) Net Asset Value | | 230.500M | 2 | 220.500M | 2 | 209.000M | 2 | 198.500M | 2 |

Current Multiples — 5) Hide Multiples

| | Last 4 Qtrs Act | Next 4 Qtrs Est | FY 2026 | FY 2027 | FY 2028 |
|---|---|---|---|---|---|
| Price/EPS, Adj+ | | | | | |
| Price/Book | 4.62 | 3.62 | 4.32 | 4.78 | 4.81 |
| Price/Cash Flow | | | | | |
| EV/Revenue | 10.14 | 7.29 | 7.30 | 5.71 | 4.24 |
| EV/EBITDA | | | | | |
| EV/EBIT | | | | | |
| EV/OPP | | | | | |
| Dividend Yield | | | | | |

**Justifications**

**Customer E (Google), FY25 +63% to FY26E +61% ($42.0M):** FY25 growth was driven by partial-year Pixel Watch 4 chip volume (Apollo510 confirmed as discrete coprocessor per Embedded Computing Design teardown, February 2026) plus ongoing Fitbit franchise refresh (Apollo4 family confirmed as main MCU across Charge 5, Luxe, Sense 2 via TechInsights). FY26 growth of +61% is supported by the Pixel Watch 5 cycle (expected August 2026 per the annual Made-by-Google cadence, generating H1 26 chip orders under AMBQ's 16-36 week PO lead times), the Fitbit Air and continued Fitbit Charge-line refresh, and full-year Pixel Watch 4 volume versus partial-year in FY25.

**Customer G (WHOOP), FY25 +91% to FY26E +85% ($26.8M):** TechInsights' WHOOP 5.0 Deep Dive Teardown (September 2025) confirmed an Ambiq Cortex-M4 MCU with BLE 5.0 as the sole main processor, displacing the Maxim MAX32652 used in WHOOP 4.0. FY26 growth of +85% is supported by WHOOP's reported 103% subscription growth in FY25, member base expanding toward 2.5M, expansion across 56 markets, and active IPO preparation creating structural incentive to accelerate hardware distribution pre-listing. Rate moderates modestly from FY25's +91% on a larger base. Key risk flagged above: the FY25 free-upgrade surge may not repeat without a WHOOP 6.0.

**Other, Suunto and COROS, FY25 +43% to FY26E +105% ($8.9M):** FY25 was partial-year revenue from three Apollo510 main-processor design wins launched in 2H 25: COROS APEX 4 (October 2025), Suunto Race 2 (August 2025), Suunto Vertical 2 (September 2025). FY26 accelerates to +105% on the mechanical full-year effect of all three contributing four quarters of chip volume versus one-to-two partial quarters in FY25, plus management's Q4 25 guidance that non-personal-device revenue is expected to expand materially in 2026.

**Customer F (Garmin), attach rate 0.89% to 1.00%, FY26E +26% ($26.4M):** Customer F attach rate against Garmin's Fitness segment declined from 1.03% (FY24) to 0.89% (FY25) because Garmin runs an NXP i.MX RT500 main processor with Apollo3 as a sensor hub coprocessor across the Fenix 7X Solar (2022) and Fenix 8 Solar (2024), a static architecture that caps content per device. The recovery to 1.00% in FY26E is driven by the anticipated mid-2026 CIRQA band, inferred to use an AMBQ Apollo chip on four converging data points: (1) CIRQA is a screenless WHOOP-style fitness band, an architecture where WHOOP itself uses AMBQ as sole main processor; (2) Garmin's closest sport-band competitors COROS and Suunto both independently selected Apollo510 as main processor for their 2024-2025 flagships; (3) the5krunner (March 2026) noted Suunto's Apollo510 architecture outperforms Garmin's NXP architecture on efficiency; and (4) AMBQ is already a qualified Garmin supplier, removing requalification friction. Applied to Bloomberg's FY26 Garmin Fitness consensus of $2,642M, a 1.00% attach rate implies $26.4M (+26% versus FY25's $21.0M). The inference is not teardown-verified, as CIRQA had not launched as of the pitch date, and is presented as a high-conviction inference, not confirmed fact.