BrainChip Holdings Ltd
Market and Product Development Update

25 March 2020 6:00 p.m. USPDT
26 March 12:00 p.m. 2020 AEDT
26 March 9:00 a.m. AWST

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Agenda

- Health, Safety, Communication and Productivity Update
- Sales and Market Update
- Financial Update
- Product Development Update
- Research Update
- Questions
Health Safety Communication and Productivity

• Company is adhering to government restrictions and the World Health Organization guidelines:
  • Employees were instructed to work from home prior to California, New York, New Jersey and Illinois mandate as well as international travel restrictions
• Communication within the Company is unaffected
• Communication with partners is unaffected
• Communication with target customers is challenged and varies by region
• Currently no indication of supply chain interruption
• Productivity is unaffected
Akida™ Update Sales and Markets

• AI Edge
  • Automotive – Tier 1 automobile manufacturers
  • Automotive – Tier 1 module suppliers
  • Smart Home – Tier 1 global manufacturers
  • Smart City – Tier 1 global manufacturers
Akida™ Update Sales and Markets

• Socionext to offer BrainChip Akida™ device with SynQuacer™ multi-core processor
  • Reference design for OEM/ODM edge server requirements

• Exploring further commercial cooperation
  • IP offering
  • IC offering
Financial Update

• 4C and Update Scheduled for 30 April 2020

• Continuous expense control including:
  • Headcount
  • Multi-project wafer
  • Travel
  • Discretionary legal and advisory
Financial Update

• The Company will require revenue and/or investment to fulfill its mission of commercializing its groundbreaking technology

• The Company is evaluating multiple instruments to determine the lowest cost of capital:
  • Strategic Investment
  • Debt
  • Convertible Debt
  • Structured Finance
  • Equity

• The Company’s primary goal is to secure capital to support the commercialization of its technology and increase shareholder value
Financial Update

• Silicon Valley, California – sales, marketing and executive office
• Southern California – hardware, software and research center
• Toulouse, France – software and research center
• Hyderabad, India – software development
• Perth, Western Australia – innovation center
• Shanghai, China – innovation center

• Headcount – 34 fulltime, 6 contractors
Akida™ Competition

- CPU – Inefficient use of critical resources
- GPU – Inefficient use of power
- DLA – Inefficient system design
- SoC – Inefficient use case coverage
- Akida – Efficient Ultra-low power, flexible and complete network
Product Development Update

• Akida integrated circuit development
  • GDSII delivery to TSMC 31 March 2020
  • Wafer fabrication 8 April 2020
  • Expedited schedule with shuttle for Multi-Project Wafer
  • Scheduling back-end resources for assembly
  • Engineering samples Q3 2020
• **Data-Based Convolutional**
  - Discrete Solution – CPU, Memory and Accelerator
  - Deep Layers – 20 to 50
  - Math Intensive – MACS
  - Inefficient Power – 40 Watts to 100 Watts

• **Event-Based Convolutional**
  - Integrated Solution – No CPU, External Memory or Accelerator
  - Deep Layers – 20 to 50
  - Sparsity of Data – Less Operations
  - Efficient Power – 500 micro Watts to 4 Watts

• **Spiking**
  - Integrated Solution – No CPU, External Memory or Accelerator
  - Shallow Layers – 2 to 5
  - Sparsity of Data – Less Operations
  - Efficient Power – 50 micro Watts to 2 Watts
  - Continuous Learning – Add classifiers without re-training the entire network
Product Development Update

• Akida Development Environment (ADE)
• Akida Field Programmable Gate Array (FPGA)
• Akida Engineering Samples
Akida™ One Shot Incremental Learning
Akida™ Event-Based Learning
Research Update

- WA Research Center
  - Advanced Research
  - Application Solutions
  - Next-Generation Learning
  - Recurrent layer capability
  - Transformer network capability
Marketing Update

• Global Photonic Neuromorphic Chip Market 2020 By Top Key Companies, Types, Application, Business Trends, Regional Analysis and Forecast to 2025, 3/20/2020

• EDA Café 3/15/2020

• Actual Tech Media 3/15/2020
  • [https://www.youtube.com/watch?v=Og607R-CW7k](https://www.youtube.com/watch?v=Og607R-CW7k)
Marketing Update

• Semiconductor Engineering, The Challenges of Building Inferencing Chips, 2/29/2020
  • https://semiengineering.com/the-challenges-of-building-inferencing-chips/

• Edge and AI Vision Alliance, Develop and Deploy on Akida Deeply Learned Neural Networks in a standard TensorFlow/Keras Environment
  • https://www.edge-ai-vision.com/2020/02/brainchips-akida-development-environment-now-freely-available-for-use/

• Forbes, 2/27/20

• Artificial Intelligence (AI), Hardware And Software: History Does Rhyme
Marketing Update

• Micronews, Neuromorphic computing, a better solution for Artificial Intelligence? – An interview with BrainChip, 2/27/20
  • https://www.i-micronews.com/neuromorphic-computing-a-better-solution-for-artificial-intelligence

• Eye on AI, BrainChip to look at US and European innovation centers in commercialization push, 2/22/20
  • https://www.eye-on.ai/ai-articles/2020/02/22/brainchip

• The Market Herald, BrainChip Holdings (ASX:BRN) receives U.S. export approval, 2/18/20
Marketing Update

• Small Caps, BrainChip receives Akida export approval from US government, 2/17/20

• Biometric Update, BrainChip showcases Akida neural processing capabilities, opens developer environment, 2/13/20

• HPC Wire, BrainChip’s Akida Development Environment Now Freely Available for Use, 2/12/20
Marketing Update

• MarketWatch, Neuromorphic Chip Market Size, Status, Demand and Global Outlook 2020: aiCTX AG, BrainChip Holdings Ltd., General Vision Inc, HP, 2/5/20

• Galus Australis, Artificial Brain Market Trends, Business Outlook 2020, Expanding Current Industry Status by Top Most Players: Tencent, IBM, Gartner, BrainChip Inc, iFlytek, 2/5/20
Marketing Update

• Tech Mag, Self-Learning Neuromorphic Chip Market Size, Share, Trend & Growth Forecast to 2025, 2/4/20

• The Next Platform, NEUROMORPHIC CHIP MAKER TAKES AIM AT THE EDGE, 1/30/20
  • https://www.nextplatform.com/2020/01/30/neuromorphic-chip-maker-takes-aim-at-the-edge/
Summary

• Akida integrated circuit scheduled for manufacturing
• Akida intellectual property currently marketing
• Akida advanced research
Questions