AP Memory Technology Corporation

November 2021

TWSE: 6531



Disclaimer

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Outline

- About AP Memory
- Financial Highlight
- Q&A

O1 About AP Memory



Company Profile

- A fabless Customized DRAM and IP company since 2011
- Listed on the Taiwan Stock Exchange since 2016
- Headquartered in Hsinchu, Taiwan
 - R&D centers in US, Taiwan, and China. Sales worldwide.
- Headcount: 155 (as of Oct 31, 2021)
- Market Cap: NT\$ 80B (as of Oct 31, 2021)
- Shares Outstanding: 148.6M

Milestones

- 2021 VHM[™] enters production
- 2020 Exited specialty DRAM business
- 2019 Cumulative IoT RAM shipment exceeds 5,000,000,000
 - 2018 Started VHM[™] 3D integration pilot project 2018 AP Memory (Hangzhou) established 2017 Acquired Zentel Electronics
 - 2016 Listed on TWSE (6531)

- 2012 AP Memory USA Established
- 2011 AP Memory Founded (PSRAM targeting feature phone market.)

Why Customized DRAM?

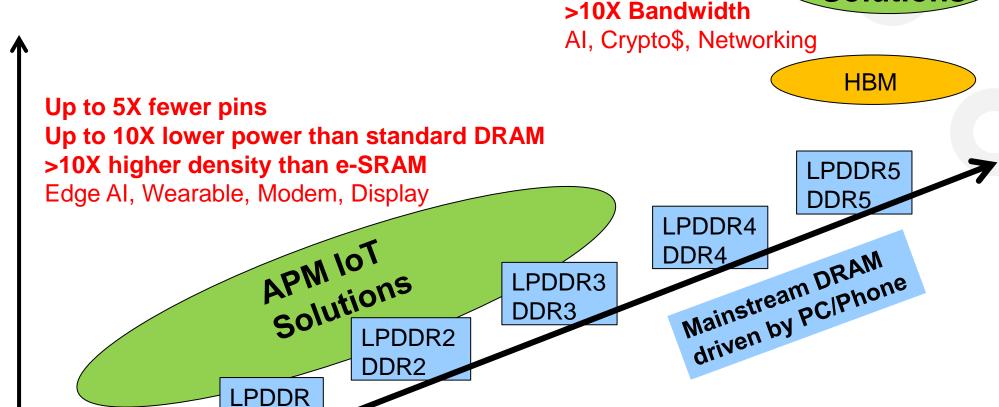
- Mainstream Standard DRAM (~95%) is driven by
 - PC/Server: DDR/2/3/4/5
 - Mobile: LPDDR/2/3/4/5
 - Graphics: HBM/2/2E/3
- What about the rest?
 - Some make do with "specialty" (old) DRAM (<5%)
 - Optimized products require optimized DRAM (<1% & growing)
 - AP Memory's customized DRAM is optimized for target applications

Customized DRAM = Application Know-how/IP + DRAM

Positioning of APM Solutions

DDR

APM AI Solutions



Memory size



LPSDR

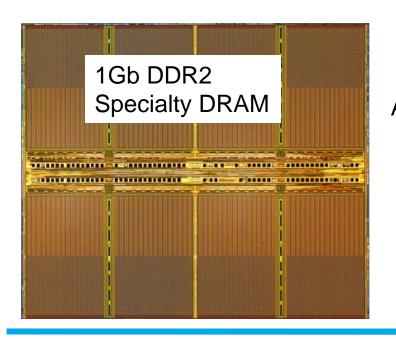
SDR

Max

Bandwidth

What is PSRAM?

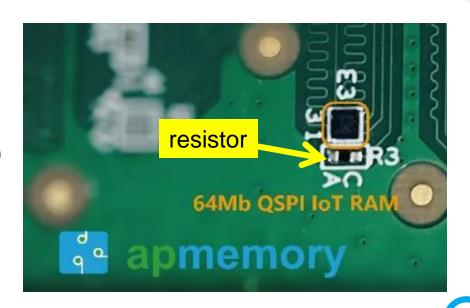
- PSRAM
 - Inside = DRAM cells
 - Outside = SRAM interface, customized to reduce
 1. Pin count 2. Complexity 3. Power 4. Form factor
- Customized interface → stickiness



APM 32Mb PSRAM



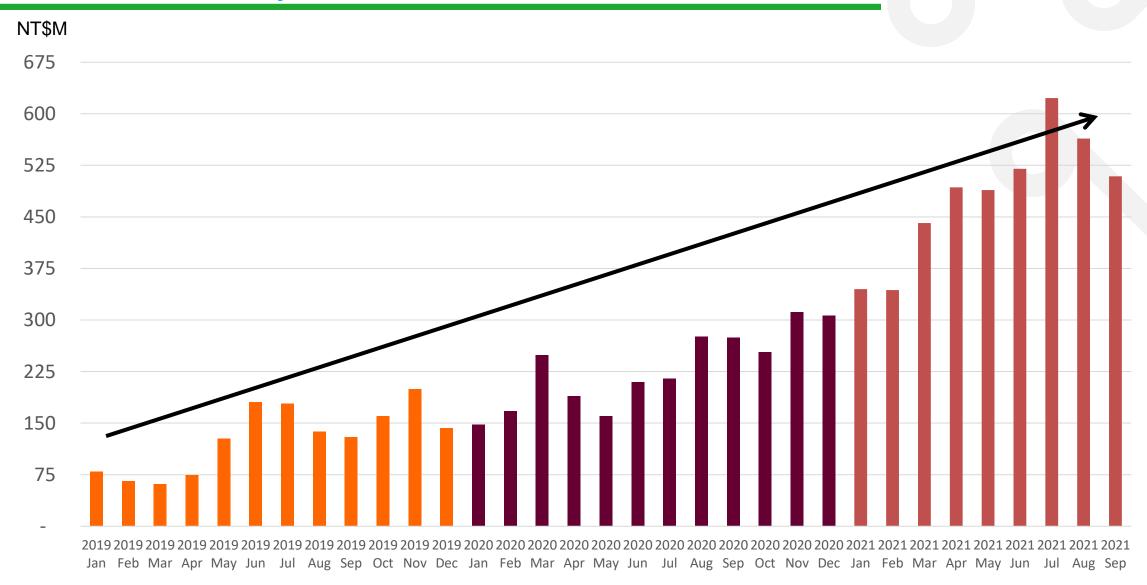
(Roughly to scale)



IoT BU

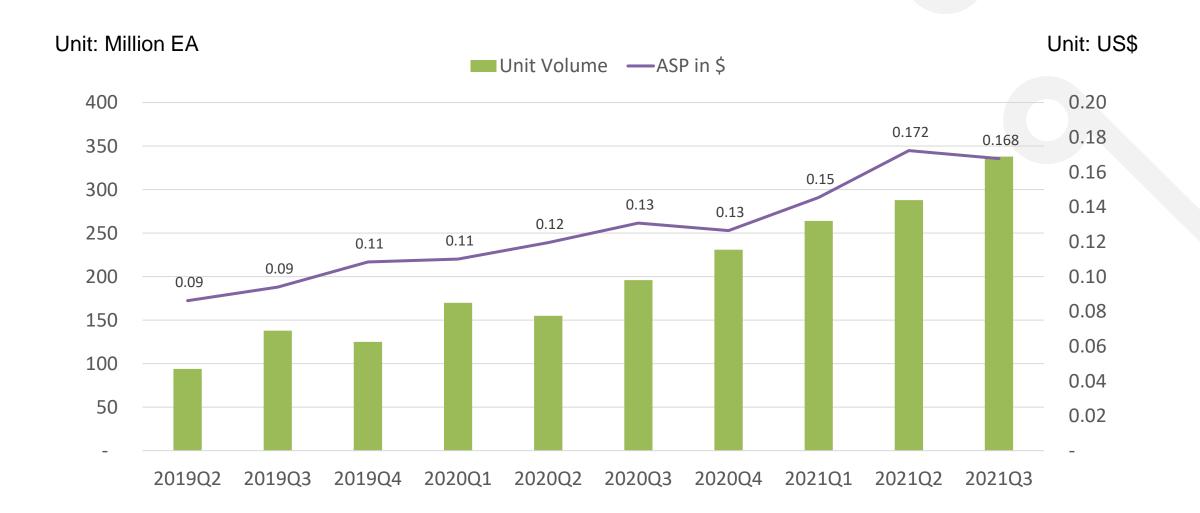
- Business Model
 - Sales of IoT RAM
 - Mostly in Known-Good-Die (KGD) form
- Business highlight
 - Shipping ~1 billion units yearly
 - >50% WW market share
 - Market leader, defining spec for industry
 - DDR ADMUX, OPI, QSPI, ULP, UHS, ULS

IoTRAM Monthly Revenue Trend

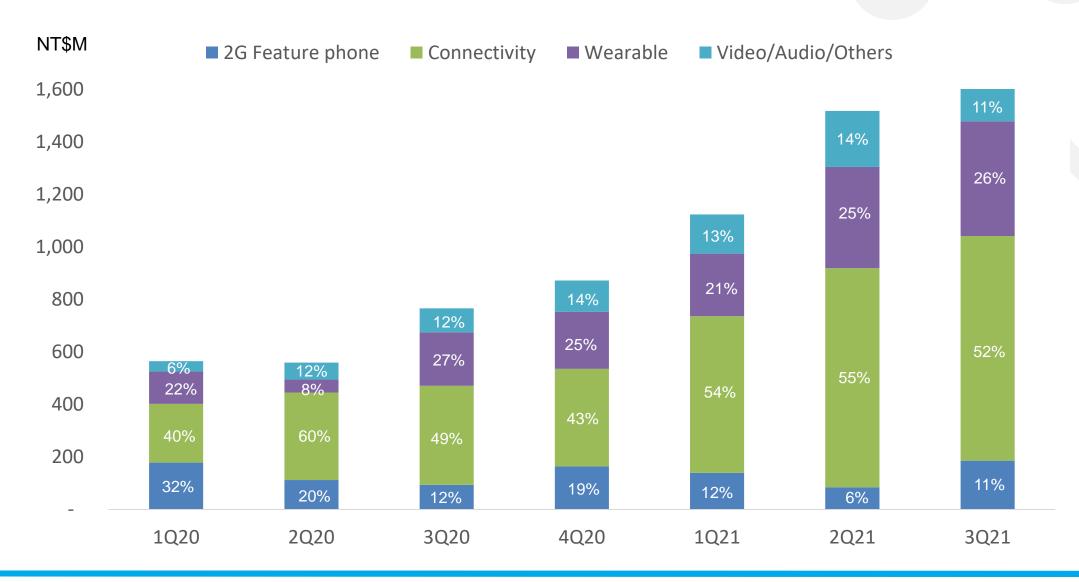




IoTRAM Unit Volume and ASP Trend



IoTRAM Revenue by Application

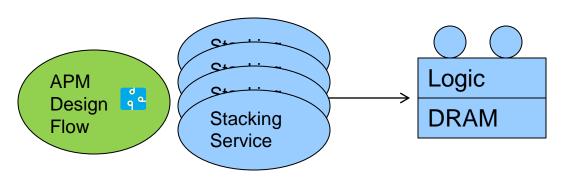


AI BU

- Business Model:
 - Licensing + DRAM wafer sales
 - Pre-production: License fee of VHM® and associated IP
 - Production: sales revenue of DRAM wafers
- VHM®: World's first 3D Logic-DRAM integration
 - First MP revenue in Q2'21

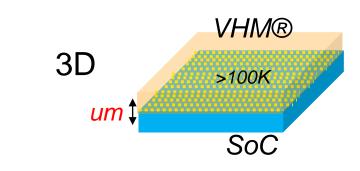


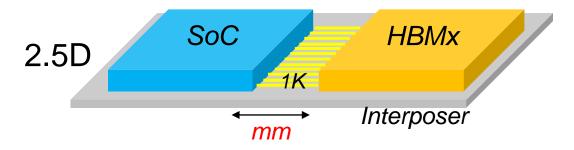




What is VHM®

- 3D stacking of memory on logic
 - Much better bandwidth (more connections)
 - Much better power (shorter connections)
- The pain point
 - Bandwidth requirement far exceeds HBM/2/E/3
- Value proposition
 - Memory capacity: sufficient
 - Bandwidth>>HBM
 - Maturing supply chain

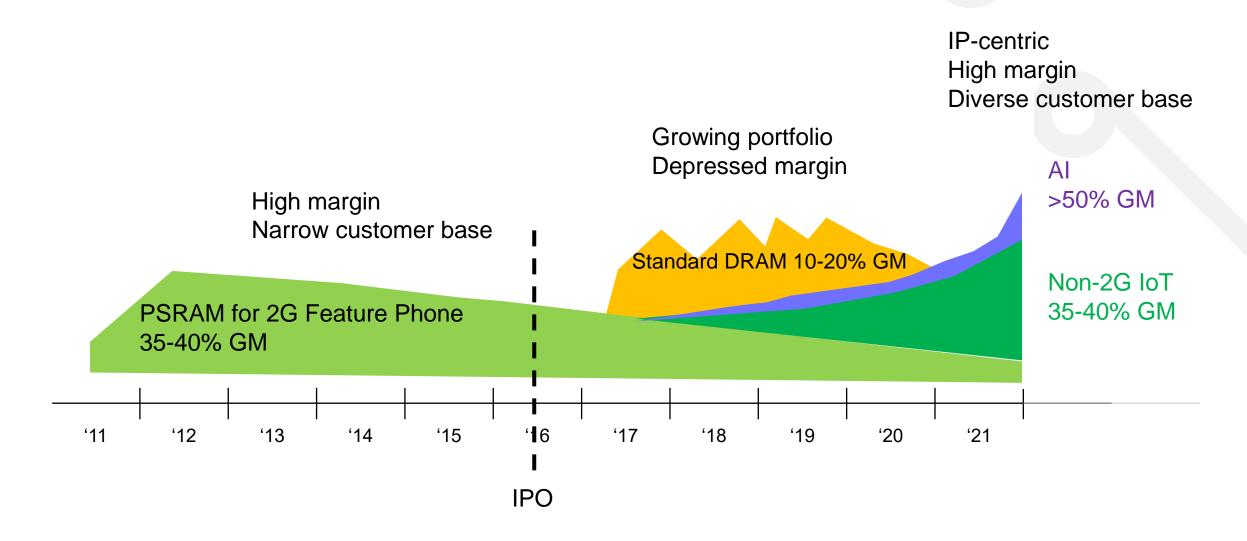




Al BU Revenue by Category



Evolution of Our Business Model

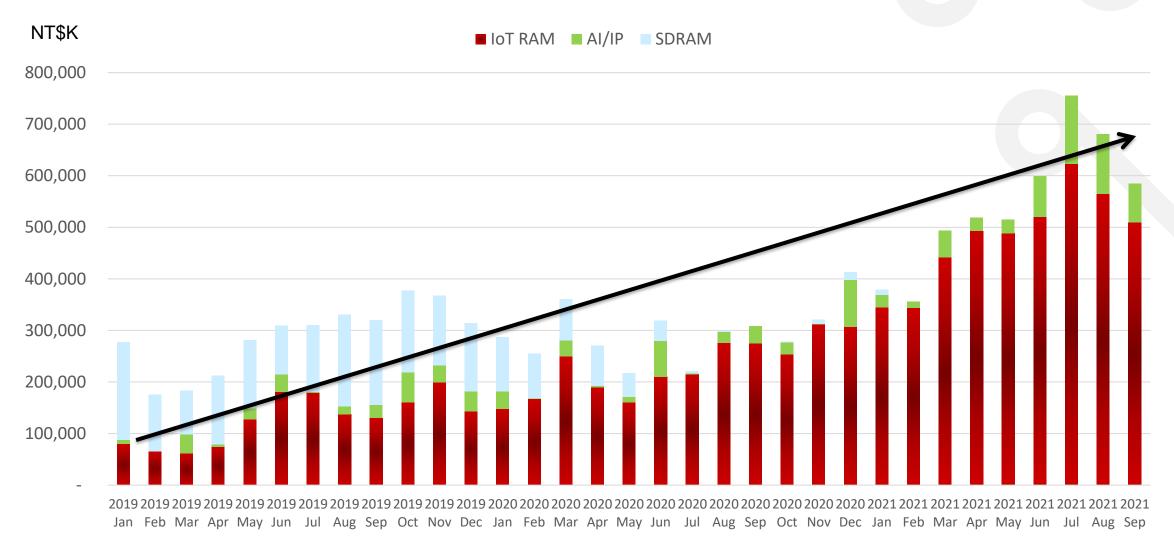


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Financial Highlight



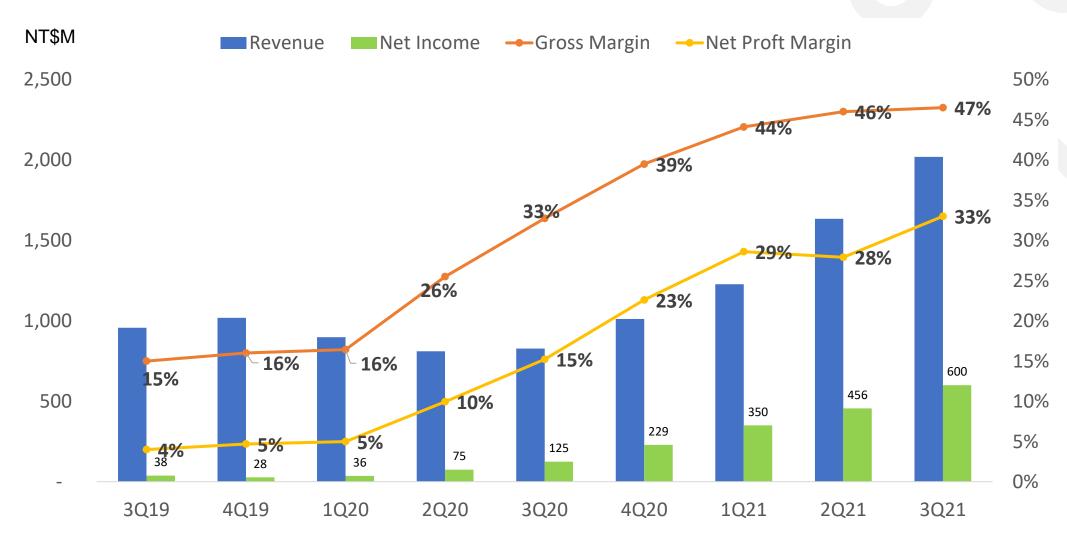
Revenue Trend



^{*} Excluded the discontinuing operation



Operating Results

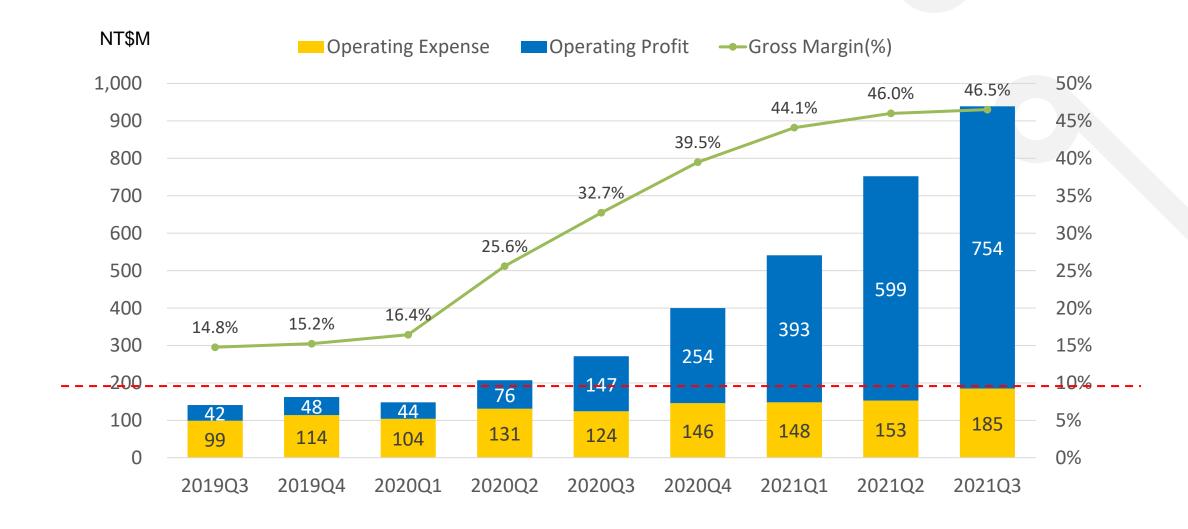


^{* 4}Q20 excluded one time gain on disposal of subsidiary.

^{* 3}Q21 excluded gains from the valuation of the financial assets.



Operating Profit Trend



Expense Trend



Financial Ratios

| | 2021 Q3 | 2021 Q2 | 2021 Q1 | 2020 Q4 | 2020 Q3 | 2020 Q2 | 2020 Q1 |
|--|----------------|----------------|-----------------|------------------|-------------------|------------------|------------------|
| Current Ratio | 369% | 274%*** | 352% | 387% | 357% | 318% | 349% |
| Quick Ratio | 263% | 213%*** | 284% | 313% | 277% | 202% | 214% |
| Average A/R collection days | 35 days | 44 days | 52 days | 49 days | 66 days | 77 days | 63 days |
| | | | | | | | |
| Days sales of inventory | 99 days | 95 days | 109 days | 119 days | 156 days | 169 days | 151 days |
| Days sales of inventory Net income(%) | 99 days 33% | 95 days 28% | 109 days 29% | 119 days 22%* | 156 days 15%** | 169 days 9%** | 151 days 5%** |
| | | | | | • | | |

^{*2020.}Q4 excluded one time gains from disposal of subsidiary.



^{**} Exclude the discontinuing operation

^{***} W/O cash dividends payable, Current Ratio and Quick Ratio will be 355% and 276%, respectively.

Future Outlook

BU Focus

- IoT: Revenue/profit growth
- AI: 3D ecosystem development

Long-term Outlook

- IoT: Growing cash cow, riding long-term IoT growth
- Al: Vast opportunities, execution is the key

Short-term Outlook

- Logic shortage impacting both IoT & AI customers
- Limited visibility for 2022 revenue growth

Q&A

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