

Etron Technology, Inc. Since 1991



***2022 Third Quarter Investor
Conference***

Dec 8 , 2022

Safe Harbor Notice

This following presentation contains forward-looking statements, which involve known and unknown risks and are subject to uncertainties that could cause actual performance, financial results, or operation conditions to be materially different from those contained in the forward-looking statements.

Except as required by law, we undertake no obligation to update any forward-looking statement, whether as result of new information, future events, or otherwise.

Etron Technology, Inc.



- Fabless IC Design House since 1991
- IPO in Taipei Exchange, 1998 (TPEX: 5351.TW)
- Capital : **US\$89.39M** *
- Assets: **US\$257.86M** *
- Patents: **USA 219; Total 765** (As of Nov 2022)
- Number of Employees: **420** (As of Nov 2022)
- Headquarters: Taiwan Hsinchu Science Park
- Global Location:
 - USA : Santa Clara, CA
 - China : HK, Shanghai, Shenzhen
 - Asia : Japan Tokyo
- World-Class Fabless IC design Company with Creativity and Innovative Products
- Pioneering Application-Driven Buffer Memory Business Model and Leader of Known-Good-Die Memory Products
- World's Leader in USB3.1 Type-C Switch Chip (10Gbps), Thunderbolt 3 (40Gbp) and Power Delivery (PD3.0 up to 100W) Controller
- World's Best Performance/Cost 3D Depth-Map Object-Capture Chip and Platform
- DeCloak is the first privacy computing company in Taiwan providing both software and hardware solutions base on differential privacy.

*(As of Sep. 2022)

Etron

Group Companies Working with Customers in Multiple Applications



Intelligence^N

Brain: Memories/DRAM+AI **Etron** 鈺創科技
Etron Technology, Inc.

eYS3D Microelectronics 鈺晶電子有限公司
MultipleVisions Computing



Smart Memory

3D Eyes/XR/Object Capture



Nerves: USB4.0; SERDES **eEver** 鈺群科技
eEver Technology, Inc.

Connectivity

Privacy

DCloak Differential Privacy Computing
帝爾智慧科技



A World's Leader of Semiconductor Memories with Small Form Factor, High speed, Reduced Power & Unique Features for IoT/ Display Panel/ VR/ AR/ AI/ Robot/ Car



Etron KGDM Pioneer in 3D-IC

- Etron started KGD volume shipments since 2000, has received the Intel Supplier Award and many other accolades, and shipped over 2.6 billions of units
- Applications served by Etron's KGD solutions:
 - Multimedia/baseband chip in Cellular Phones, Digital Cameras, GPS Devices, PDAs, MP3s, Mobile TVs
 - TVs/Displays, Projectors, Rearview Monitors, Surveillances
 - Printers, HDDs, ODDs, Blu-ray DVDs, Graphics
 - Flash Combos
 - Set Top Boxes
 - Automotive



Etron Memory Focused & Widely Used in 4C

■ Computer

- HDD, SSD, ODD, Graphic
- Printer, Projector
- Industrial PC

■ Consumer

- DTV (FHD, 3D, UHD, 8K), STB
- DVD, Audio, Video
- Smart Home, Game Console

■ Communication

- xDSL, FTTx/PON
- WiFi, IoT/IoE
- IP Cam, IP STB, UAV

■ Car Electronic

- Car Infotainment, DAB
- Dash Cam, HUD, Navigator
- ADAS



DRAM Revenue (By Applications)

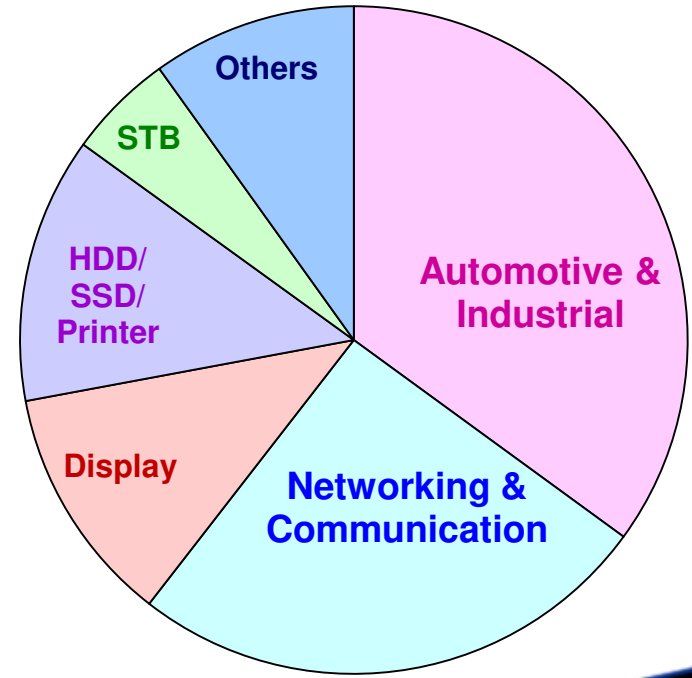
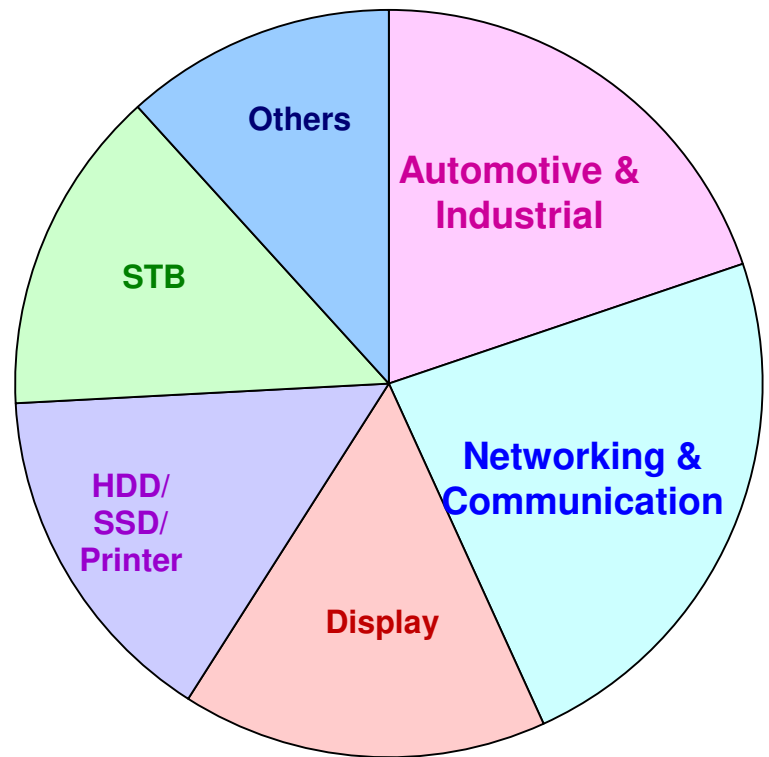
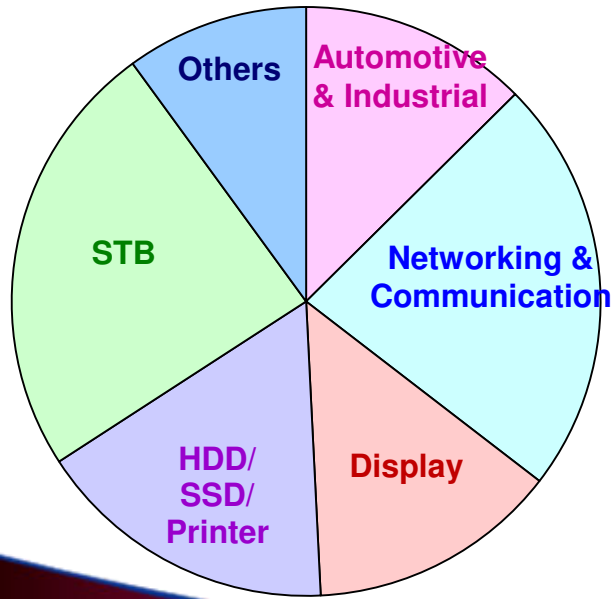
- Continuously Growing Up in Automotive & Industrial Applications
Grow from 19.8% in 2021 to 35.0% in 2022 (As of 3Q22)

- Stay Focused on Networking Application

Revenue of 2021

Revenue of 2022 (As of 3Q22)

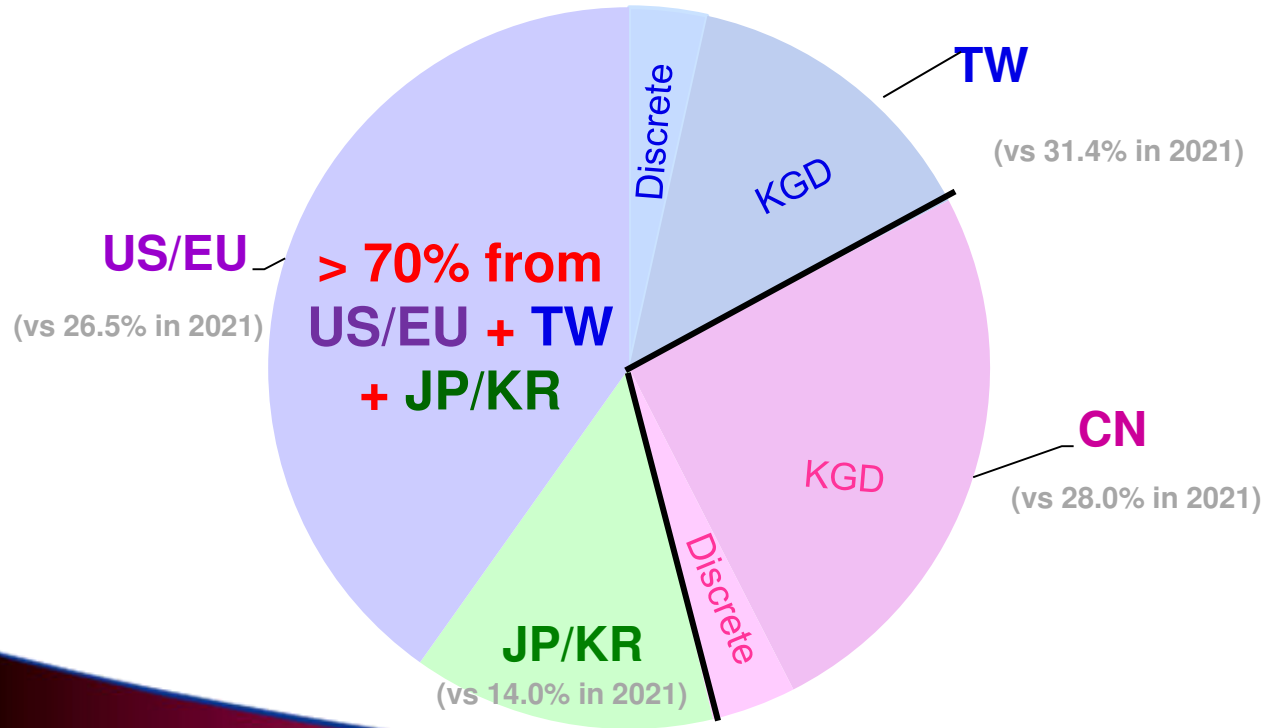
Revenue of 2020



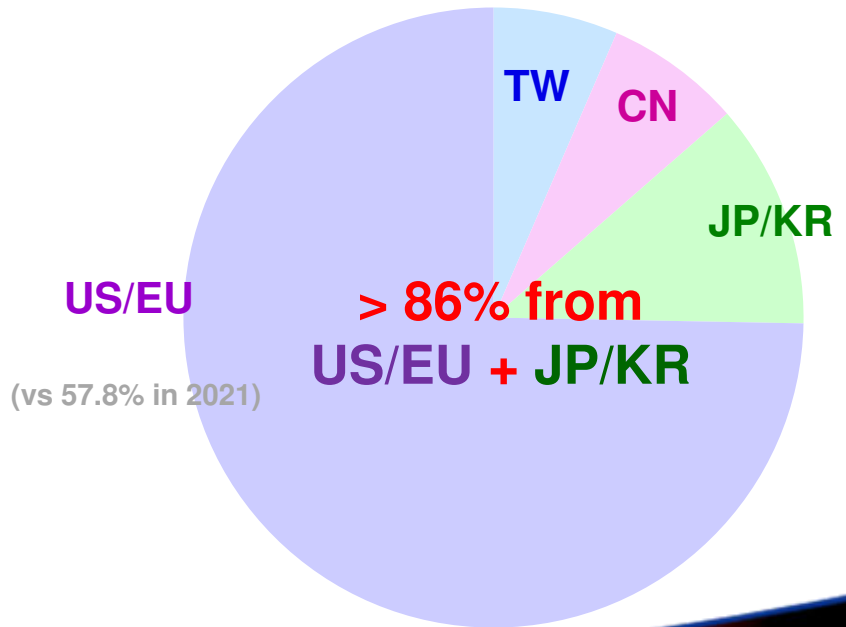
DRAM Revenues by Regions

- Revenues by End User Customer Regions, As of 3Q22
 - Revenues >70% from US/EU/JP/KR/TW
 - Discrete Business: Revenues > 86% from US/EU/JP/KR End User

Revenues by Customer Regions



Discrete Revenues by Customer Regions



Etron: Your Manufacturing Partner for Longevity Support

Extended Manufacturing Life

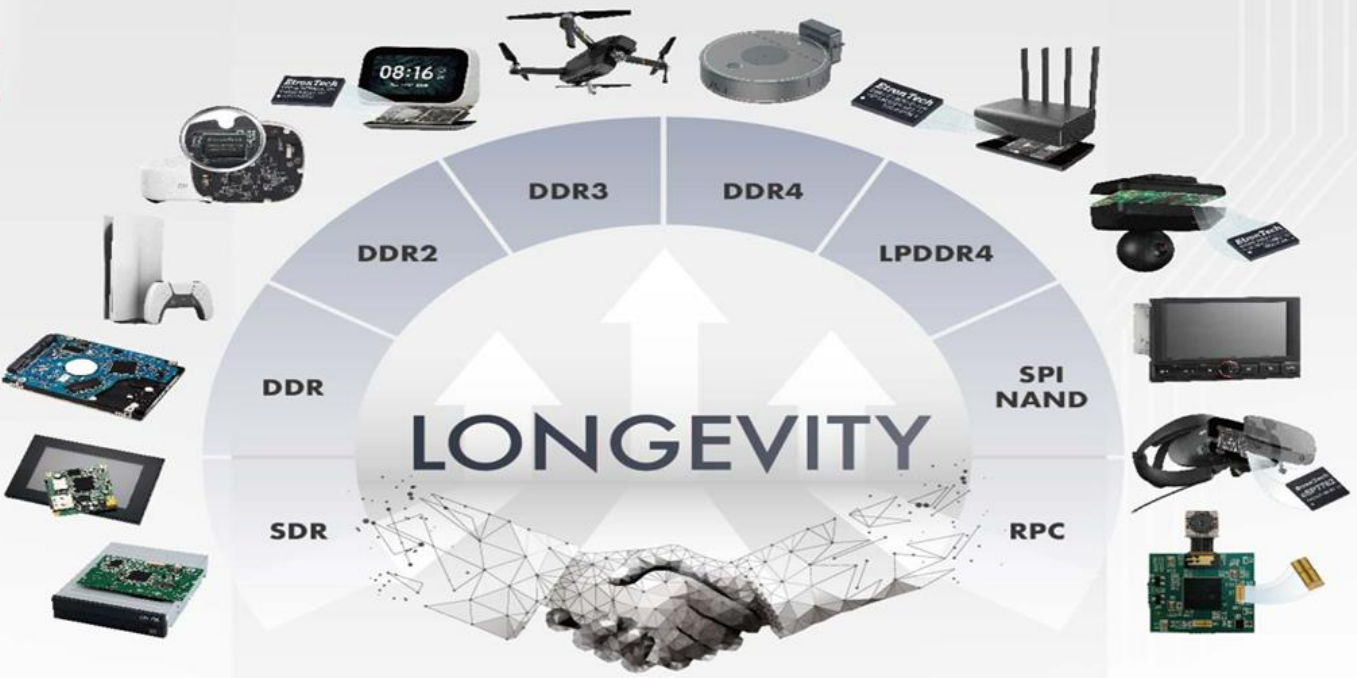
Your manufacturing partner for DRAMs >10 Years Support

Broad Product Lineup

ALL STILL GOING STRONG

- 2021 LPDDR4
- 2019 DDR4
- 2018 RPC DRAM
- 2018 LPDDR2
- 2015 SPI NAND
- 2011 DDR3
- 2008 DDR2
- 2000 DDR
- 1998 Sync DRAM

Etron intro in



For Automotive, Industrial, Commercial & Known-Good-Die Applications

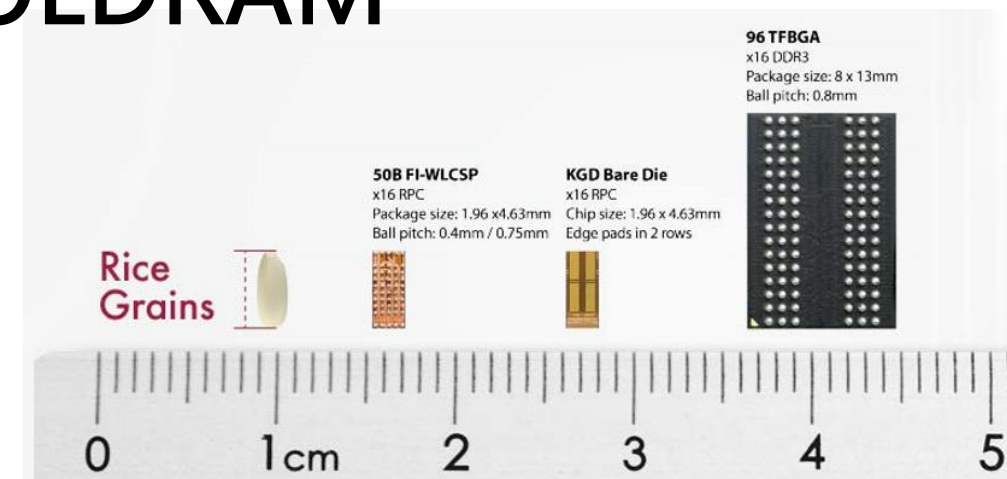
Innovative RPC DRAM[®] & KOOLDRAM[™]

■ RPC DRAM

- Support high bandwidth and reduced form-factor, which was introduced in 2018
- Wafer-level chip size package
- Best fit for those who are size/weight/power/cost constrained
- Automotive Qual AEC-Q100 Level 2

■ KOOLDRAM

- Solve traditional DRAM' s problem of access efficiency loss at high temperature by a new circuit design
- JEDEC compliance
- Extend the retention time and increase the overall performance of DRAM substantially



| | | Standard DRAM DDR3 / DDR4 | | | | KOOLDRAM | | | |
|----------------|-----------------|------------------------------|-------|-------|-------|----------|------|------|------|
| | | 1Gb | 2Gb | 4Gb | 8Gb | 1Gb | 2Gb | 4Gb | 8Gb |
| | Refresh Cycle | 8K | 8K | 8K | 8K | 8K | 8K | 8K | 8K |
| | tRFC (us) | 0.11 | 0.16 | 0.26 | 0.35 | 0.11 | 0.16 | 0.26 | 0.35 |
| < 85C | tREF (ms) | 64 | 64 | 64 | 64 | 112 | 112 | 112 | 112 |
| | Efficiency Loss | 1.4% | 2.1% | 3.3% | 4.5% | 0.8% | 1.2% | 1.9% | 2.6% |
| 85C ~ 95C | tREF (ms) | 32 | 32 | 32 | 32 | 88 | 88 | 88 | 88 |
| | Efficiency Loss | 2.8% | 4.1% | 6.7% | 9.0% | 1.0% | 1.5% | 2.4% | 3.3% |
| 95C ~ 105C | tREF (ms) | 16 | 16 | 16 | 16 | 72 | 72 | 72 | 72 |
| | Efficiency Loss | 5.6% | 8.2% | 13.3% | 17.9% | 1.3% | 1.8% | 3.0% | 4.0% |
| 105C ~ 125C | tREF (ms) | 8 | 8 | 8 | 8 | 48 | 48 | 48 | 48 |
| | Efficiency Loss | 11.3% | 16.4% | 26.6% | 35.8% | 1.9% | 2.7% | 4.4% | 6.0% |

USB4 Upgrade Business Opportunity – Transmission Line E-Marker IC Solution EJ903



- Intel TBT4 & USB4 certified
 - passed the international USB-IF 40Gbps USB4™ certification and Intel's Thunderbolt™4 dual certification
- Optically Isolated Active Cable (OIAC)
 - OIAC up to 30 meters in length, the world's first solution to support the new OIAC specification of USB-IF
 - Built-in E-Marker-IC EJ903 and PD transmission control IC-EJ899T, so that the transmission of Display AV and Data between the host and the device port is safe



30m OIAC for Video Conference in Large Space



eEver

- Live Streaming
- Video Conferencing
- E-Sports Games



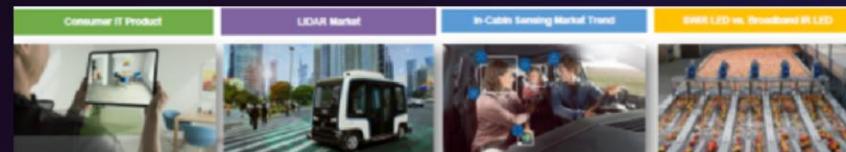
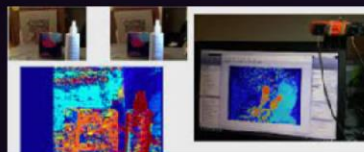
eEver
EJ511
USB Video
Capture Controller





From “Eye” to “Brain”

Work our way up from
Vision to compute with AI
through Silicon centric
technology and
Application specific
Designs



**Computer Vision is a combination of “Compute” and
“Vision” Immitation of Human is Gateway to A.I.**



*Cleaning
Robots*

*Industrial
Robotics*

*Service
Robots*

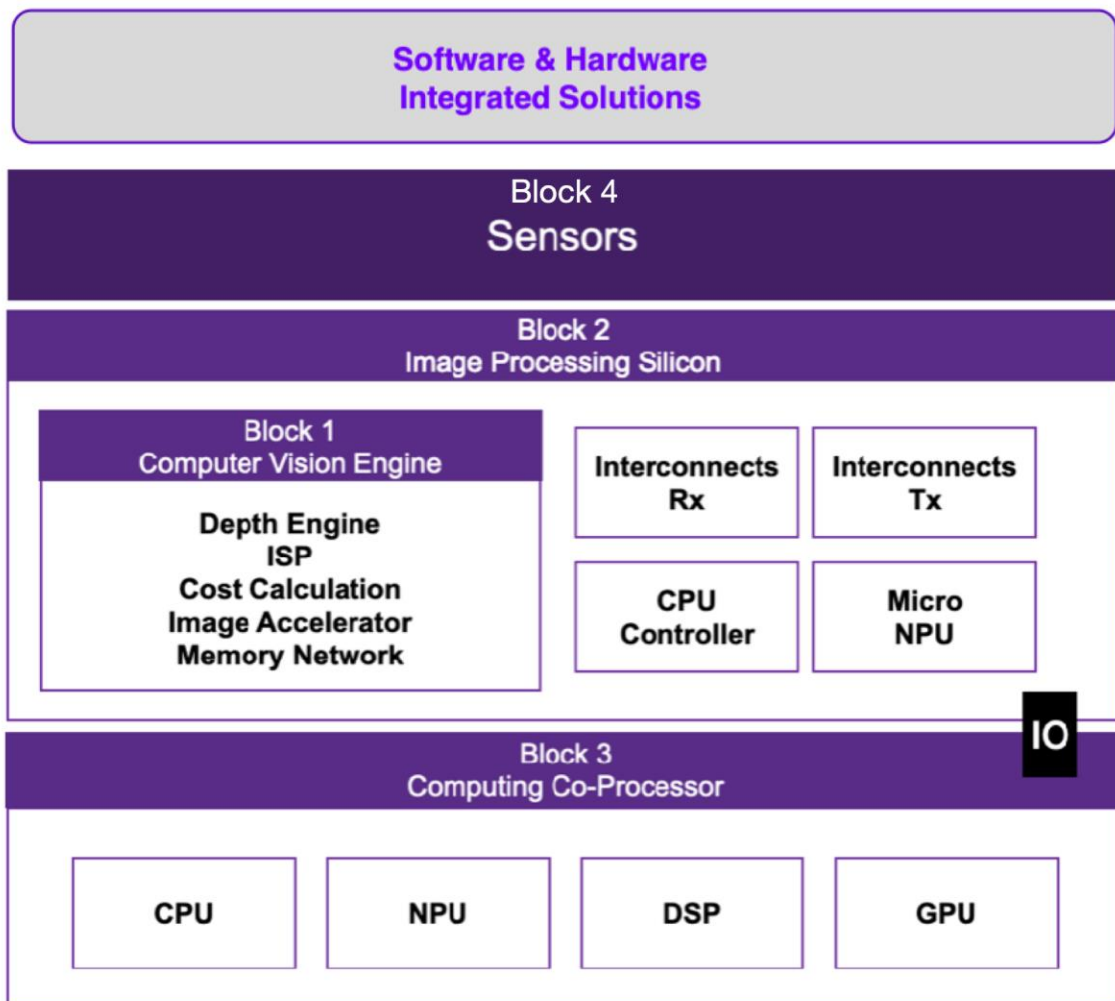
*AGV
AMR*

*Conference
Cam*

*Content
Interactions*

Heterogeneous Integration Blocks of eYs3D

Technology Blocks of eYs3D



CV Engine

Algorithmic and Memory Define Design

Sub-Systems

Based on eYs3D Silicon for lower volume and Domain specific Business

End-Point Low Power Computation



Computing Co-Processor

ARM Powered Computation Accelerator Allows stackable and scalable computing

DeCloak Intelligences was established in 2020
To Provide Highest Level of Security for User Behavior Data
Through Data De-identification Technologies and Services



Software

Big Data De-identification
Software System/APP
and Searchable
Encryption Engine



DeCloakFace

Trustable AI Obfuscated
Images for Facial Recognition

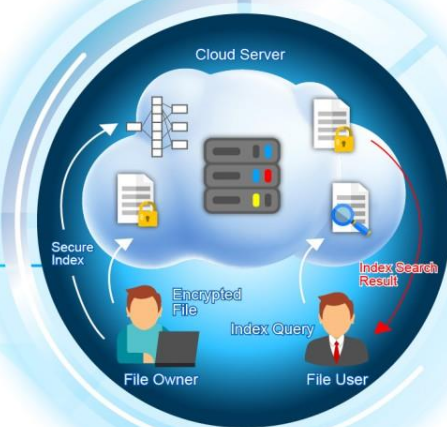


Hardware

PPU (Privacy Processing Unit)
PP-dongle (Privacy Processing
dongle)



PPU



SOE Enterprise

Secure and Searchable Encryption Engine



PP-Dongle

Obfuscated Deep Learning Facial Recognition Model



CES® 2023 Innovation Awards Honoree

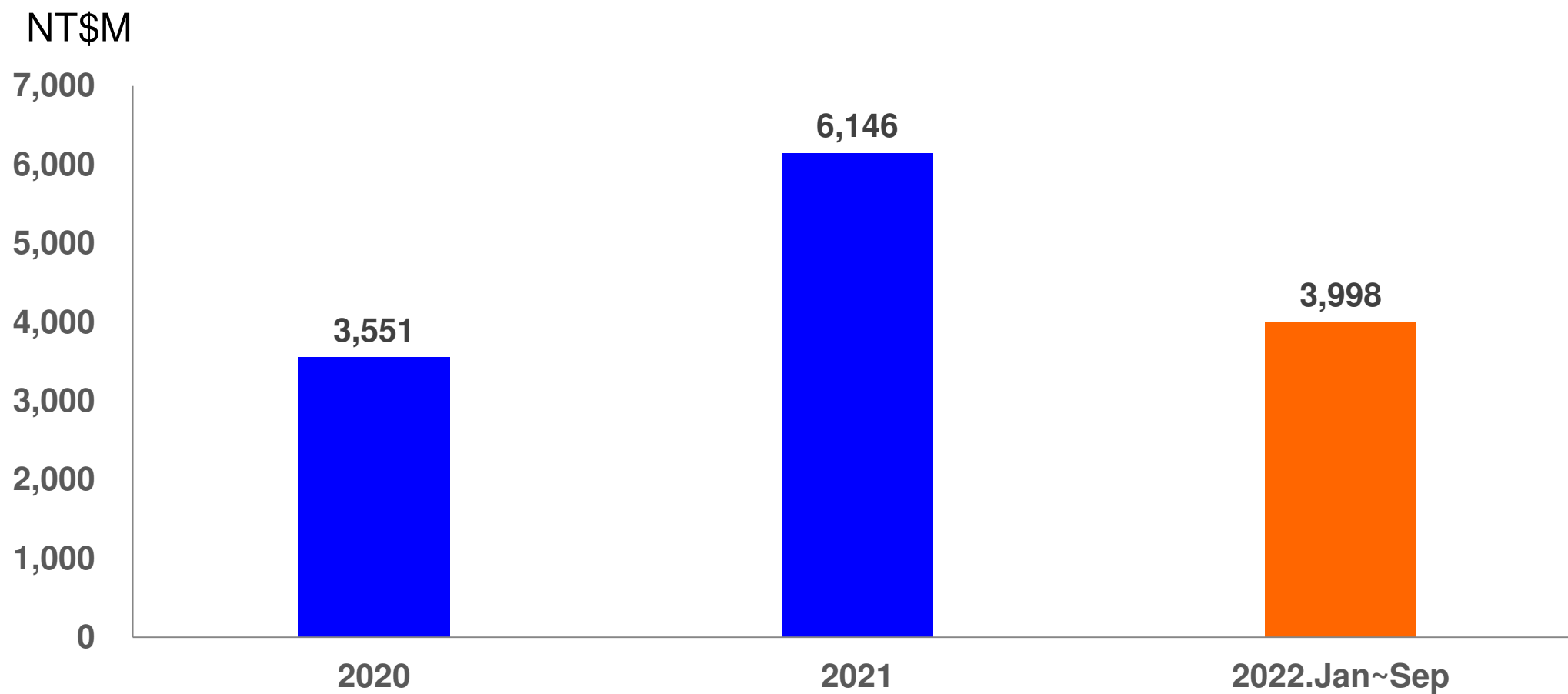


2022 Etron Awards

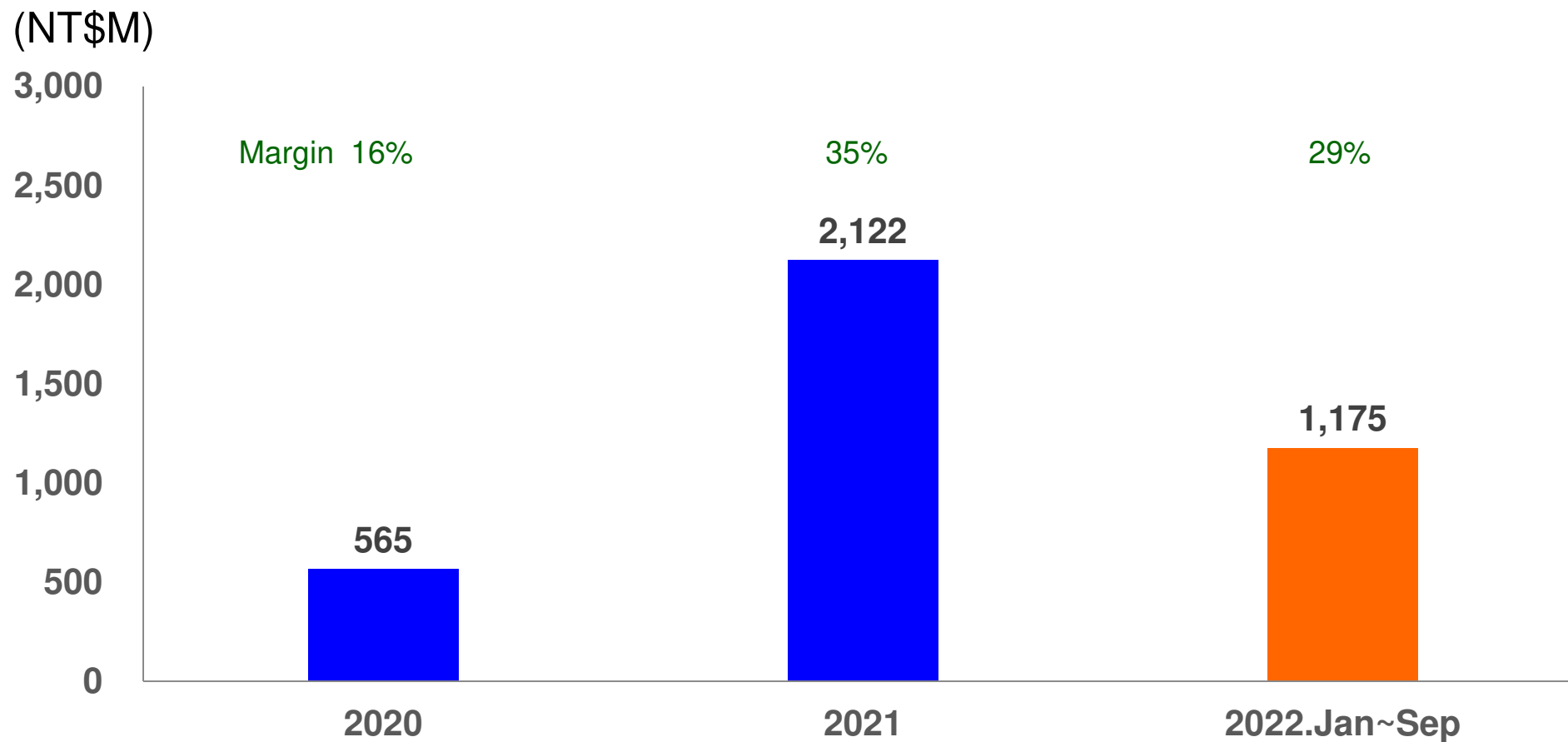
- **Hsinchu Science Park R&D Performance Awards**
 - RPC DRAM[®] / KOOLDRAM[™]
- **Hsinchu Science Park Innovative Awards**
 - USB Type-C Transmission Line E-Marker IC Solution EJ903
- **2022 Taiwan Information Storage Research Achievement Awards**
 - Differential Privacy & Searchable Encryption
- **2023 CES Innovation Awards Honoree**
 - Obfuscated Deep Learning Facial Recognition-DeCloak Face

Financial Highlights

Consolidated Operating Revenue



Consolidated Gross profit



Consolidated Statements of Comprehensive Income

| Expressed in millions of New Taiwan dollars | 3Q22' | 2Q22' | 3Q21' |
|---|-------|-------|-------|
| Operating revenue | 976 | 1,392 | 1,793 |
| Gross profit from operations | 236 | 449 | 715 |
| Gross margin from operations | 24% | 32% | 40% |
| Operating expenses | (272) | (321) | (294) |
| Operating profit | (19) | 143 | 434 |
| Non-operating income and expenses | 3 | 10 | (14) |
| Profit attributable to Owners of the parent company | 2 | 154 | 416 |
| Basic earnings per share(in dollar of NTD) | 0.01 | 0.57 | 1.47 |
| EBITDA | 48 | 217 | 487 |

Consolidated Balance Sheet

| Expressed in millions of New Taiwan dollars | Sep.30,22' | | Jun.30 ,22' | | Sep.30,21' | |
|--|------------|------|-------------|------|------------|------|
| | Amount | % | Amount | % | Amount | % |
| Cash and cash equivalents | 933 | 11% | 886 | 12% | 1,217 | 19% |
| Accounts receivable | 1,185 | 14% | 1,277 | 17% | 1,286 | 20% |
| Inventories | 3,171 | 39% | 2,470 | 33% | 1,724 | 26% |
| Total current assets | 5,600 | 68% | 4,862 | 65% | 4,324 | 66% |
| Total non-current assets | 2,587 | 32% | 2,583 | 35% | 2,231 | 34% |
| Total assets | 8,187 | 100% | 7,445 | 100% | 6,555 | 100% |
| Current liabilities | 2,100 | 26% | 1,954 | 26% | 2,102 | 32% |
| Long-term liabilities | 1,510 | 18% | 999 | 14% | 684 | 10% |
| Total liabilities | 3,609 | 44% | 2,953 | 40% | 2,785 | 42% |
| Total equity | 4,578 | 56% | 4,492 | 60% | 3,769 | 58% |
| Financial analysis highlights | | | | | | |
| Liabilities ratio | 44% | | 40% | | 42% | |
| Current ratio(times) | 2.67 | | 2.49 | | 2.06 | |

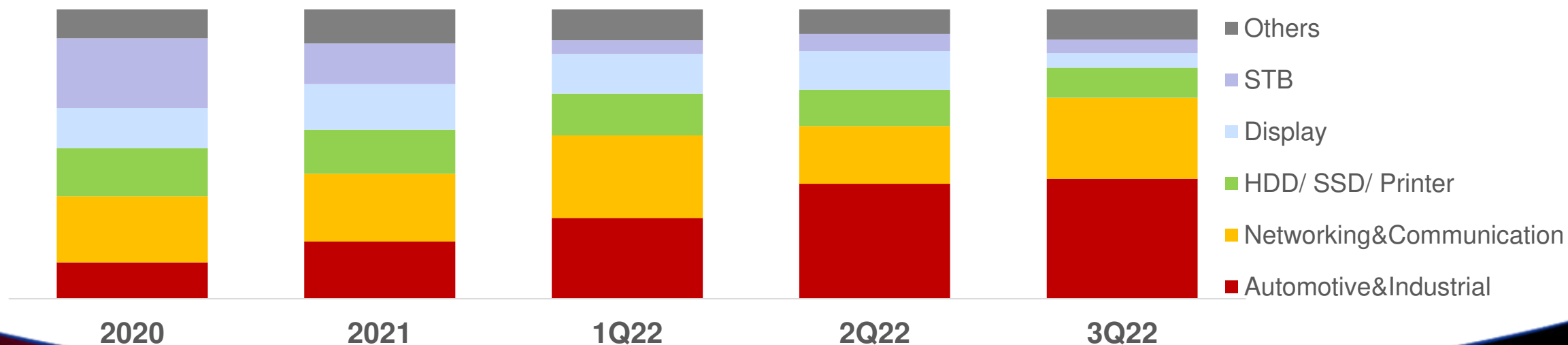
Consolidated Statements of Cash Flows

| Expressed in millions of New Taiwan dollars | 3Q22' | 2Q22' | 3Q21' |
|--|-------|-------|-------|
| Cash and cash equivalents at beginning of year | 886 | 1,194 | 1,423 |
| Cash flows from operating activities | (694) | (184) | 204 |
| Capital expenditure | (44) | (62) | (33) |
| Cash flows from financing activities and others | 785 | (62) | (377) |
| Cash and cash equivalents at end of year | 933 | 886 | 1,217 |

Revenue Trends (by Applications)

- In response to industry trends, Etron is focused on automotive/ industrial market and networking business
 - Continued revenue growth in automotive/industrial sector since 2020, accounting for 40% of Etron's 3Q22 total sales
 - Stay focused on networking business with Etron's solutions, which is currently the second largest application (~30% of total sales)

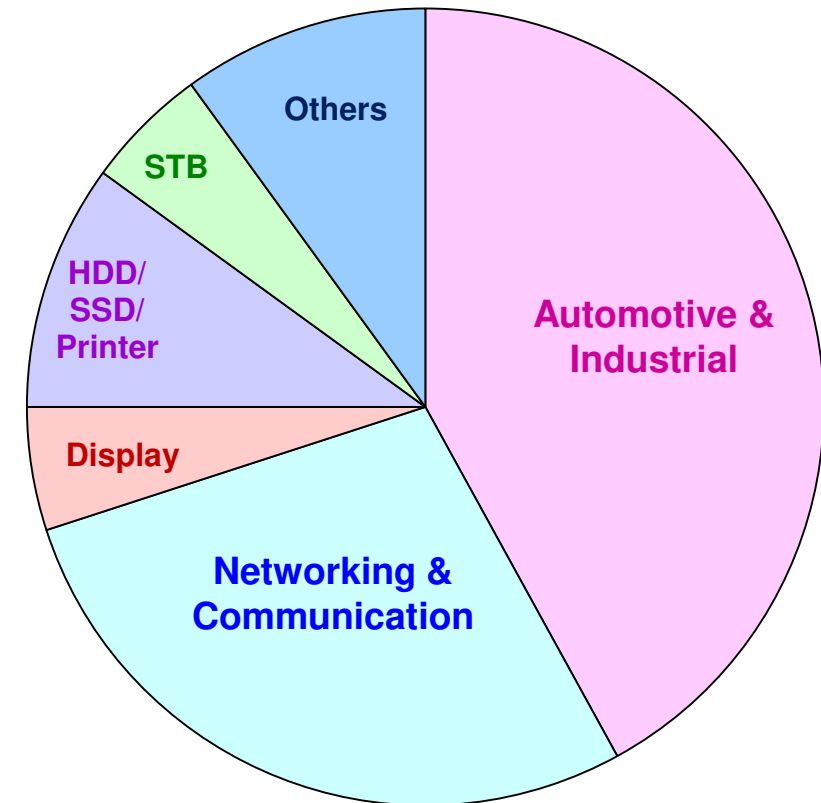
Revenue by Applications



2023 Revenue Outlook

- Etron will continue to focus on our top 2 applications. It's expected to see revenue growth driven by the demand of EV, robotics/industrial automation and 5G
 - The emerging of EV will lead to a growth for automotive electronics, and also drive growth for Etron's automotive business
 - The rising demand for robotics and automation may also be expected to increase the sales of industrial sector
 - For networking business, the demand for WiFi 6, WiFi 7, 10G PON, etc. is expected to grow steadily driven by 5G networks

2023 Revenue Outlook



Through Semiconductor IC,
We Connect People to

Realize the Dream!



www.etrone.com