
Himax
Human Interface and Display Technologies
Nasdaq : HIMX
May 2021 INVESTOR PRESENTATION

Forward Looking Statements

Factors that could cause actual events or results to differ materially from those described in this conference call include, but are not limited to, the effect of the Covid-19 pandemic on the Company's business; general business and economic conditions and the state of the semiconductor industry; market acceptance and competitiveness of the driver and non-driver products developed by the Company; demand for end-use applications products; reliance on a small group of principal customers; the uncertainty of continued success in technological innovations; our ability to develop and protect our intellectual property; pricing pressures including declines in average selling prices; changes in customer order patterns; changes in estimated full-year effective tax rate; shortage in supply of key components; changes in environmental laws and regulations; changes in export license regulated by Export Administration Regulations (EAR); exchange rate fluctuations; regulatory approvals for further investments in our subsidiaries; our ability to collect accounts receivable and manage inventory and other risks described from time to time in the Company's SEC filings, including those risks identified in the section entitled "Risk Factors" in its Form 20-F for the year ended December 31, 2020 filed with the SEC, as may be amended.

Recognized Industry Leader

For the last 30 years, we have worked with leading OEMs to develop the most recognized imaging and human interfacing technologies.

1990s

Founder B.S. Wu pioneers flat panel technologies at Chimei Electronics as CTO

2000s

Chairman Wu establishes Himax to meet DDIC demand for large panels and fast-growing medium and small panels

2010s

Himax gains market share with design wins with leading technology products companies, worldwide

2018 and Beyond

Himax leads WLO shipment and development with North American OEM customer, 3D sensing for Android. LCOS advancements for AR & HUD, CMOS for Notebook and Webcam, and WLO integration keep Himax at the forefront of AR/VR product design and pending product releases. Smart Sensing for Edge AI

Corporate Timeline

June 2001
Himax Taiwan formed by B.S. Wu

October 2004
Formed Himax Display to focus on LCOS microdisplay technology

March 2006
Himax IPOs on Nasdaq. Raised $147M with Morgan Stanley

2009
GFC reduced sales ~$900 million to ~$700 million. Refocused effort on non-driver products

June 2013
Himax completed taking out financing of Chimei

September 2015
AR business hit inflection point with pilot production shipment made to a major US customer

August 2016
Started expansion for next generation LCOS and WLO production lines

2H 2018
TDDI ramped with smartphone OEMs.
WLO shipment

2020
Tablet TDDI started MP in Q1. Strong growth from products including TDDI for Smartphone and Tablets as well as Automotive drivers

2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

December 2003
Himax Taiwan began trading on Emerging Stock Board (TW) under "3222"

August 2005
Himax Taiwan delisted from Emerging Stock Board

February 2007
Himax acquired Wisepal, and forms Himax Semiconductor to focus on small and medium sized DDICs

2010 - 2012
Non-driver sales increased gross margins and sales opportunities

July 2013
Signed investment agreement with Google

2016
Volume shipment of AR related LCOS and WLO, AMOLED DDIC, and in-cell TDDI

2017
Qualcomm & Himax jointly announced structured light-based 3D depth sensing solution

2H 2020
WiseEye, our edge AI solution, adopted by Google TensorFlow Lite for micro controllers. More joint efforts with AI allies including Edge Impulse and SparkFun

March 2021
WE-I Plus AIoT Platform received Microsoft Azure IoT PnP Certification. WiseEye received sizable PO for mainstream application. Shipment from 4Q21

Investment Highlights

Leading Imaging and Human Interfacing Technology Innovator

- Global display driver player with a wide range of display technologies for panels of all sizes
- Thousands of patents for Himax's IP and designs
- Imaging technology and human interfacing total-solution provider

Diversified Base of Customers and Revenues

- DDIC market share leader
- Penetration throughout all display market segments and with a leading position in several segments, including automotive
- Diversified revenues from traditional large and small/medium DDICs to TDDI, WLO, CIS, Timing controller and LCoS microdisplays
- Top-tier partnerships with major U.S. and Asian AP platform providers, device makers, and the world's biggest tech names
- Non-driver product lines expected to improve corporate profit margin and further diversify customer base

Operational and Public Market Performances

- Long-term profitability potential with no fundraising since IPO
- Focus on delivering P&L improvement by executing on the technologies Himax already developed for both driver IC and non-driver IC areas

Innovative New Products Capturing Growth Markets

- Integration of AMOLED and TDDI technologies fuel growth for core display driver ICs
- Himax's WLO, 3D sensing, AoS CMOS, ultralow power smart sensing, LCoS microdisplay's leading specs and continued design wins position us at the forefront of new Structured Light & ToF, AR/VR, Medical Devices, Robotics, AIoT, Edge AI, Smart Home, Automotive LiDAR, HUD development and future product releases

Visionary Management Team

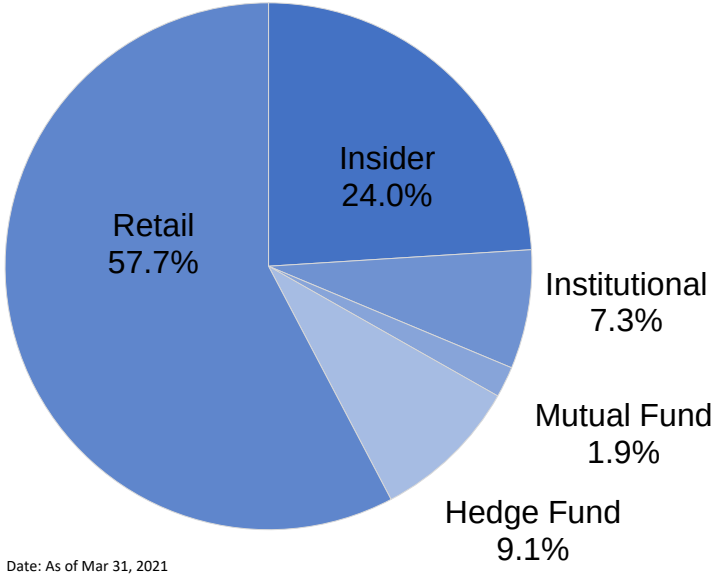
Himax on NASDAQ

HIMX
Nasdaq Listed

Fiscal Year	**December 31**
Last-Traded Price (5/5/21)	**$12.28**
Diluted Weighted Ave. Out. ADS	**174.7M**
Equivalent ADS Out	**174.3M**
Market Capitalization (5/5/21)	**$2,137M**
Daily Volume (5/5/21)	**3.63M**
Insider Ownership*	**24.0%**

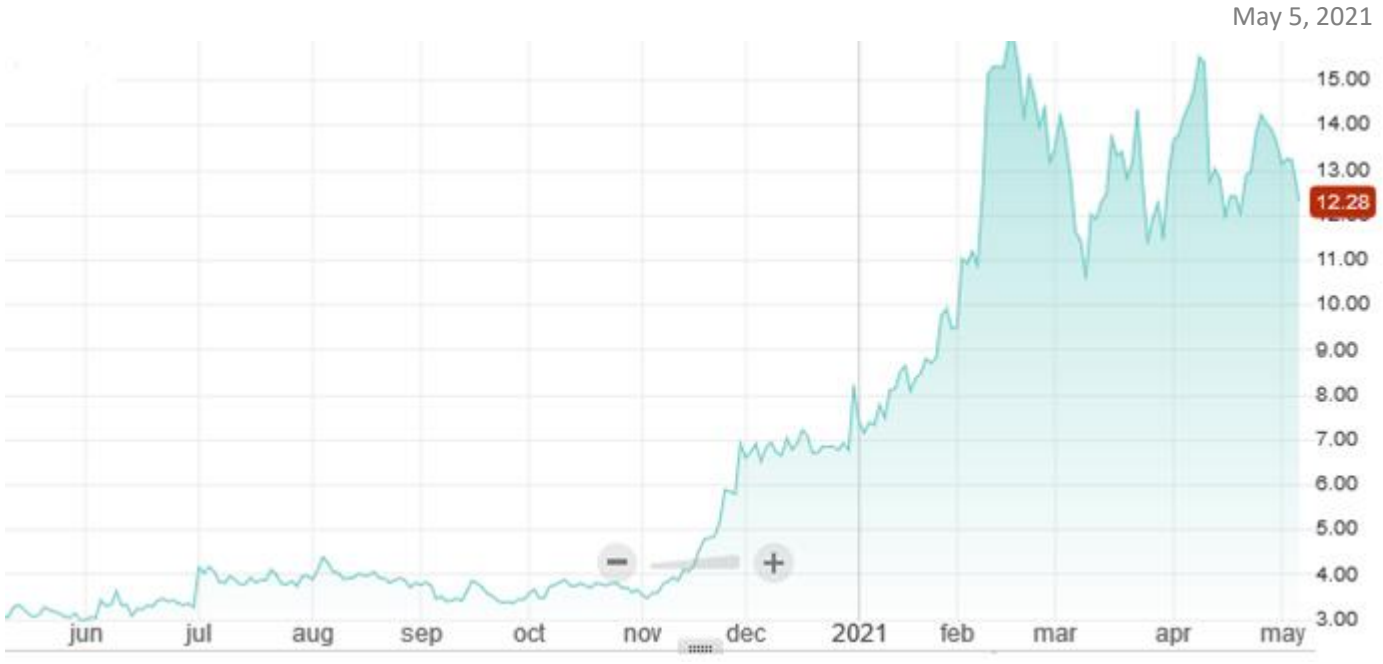
* Insider ownership includes executives and board members

Shareholder Type



Date: As of Mar 31, 2021

12 Month Trading Chart



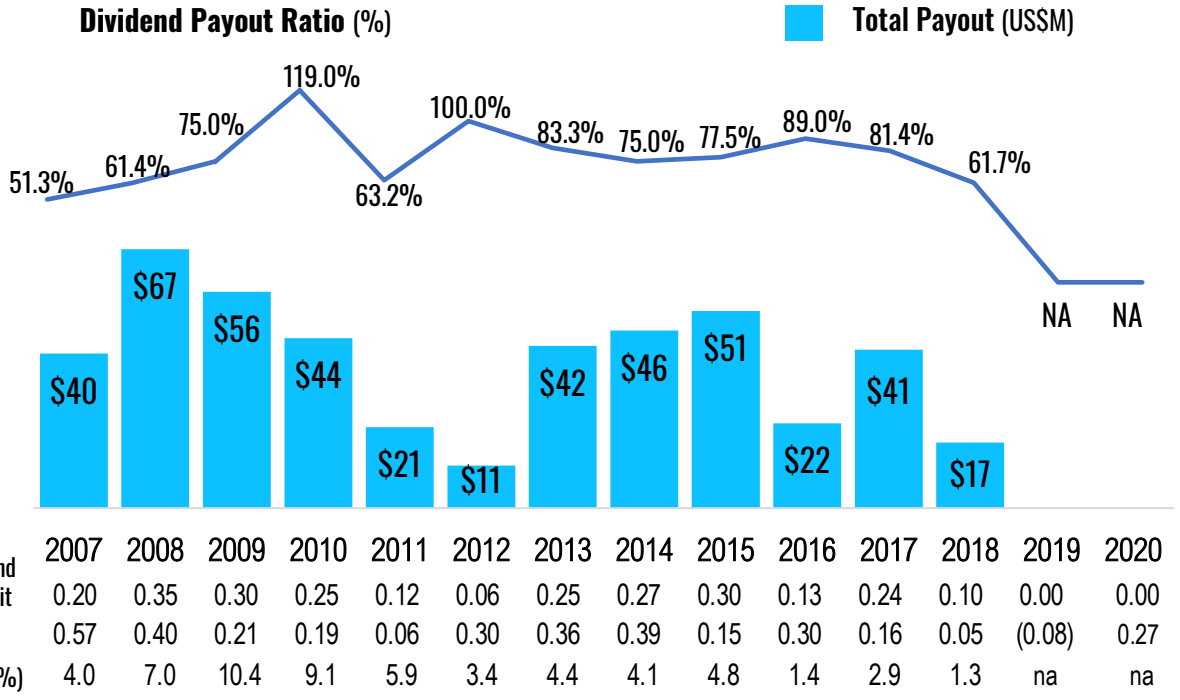
Source: www.nasdaq.com

Analysts

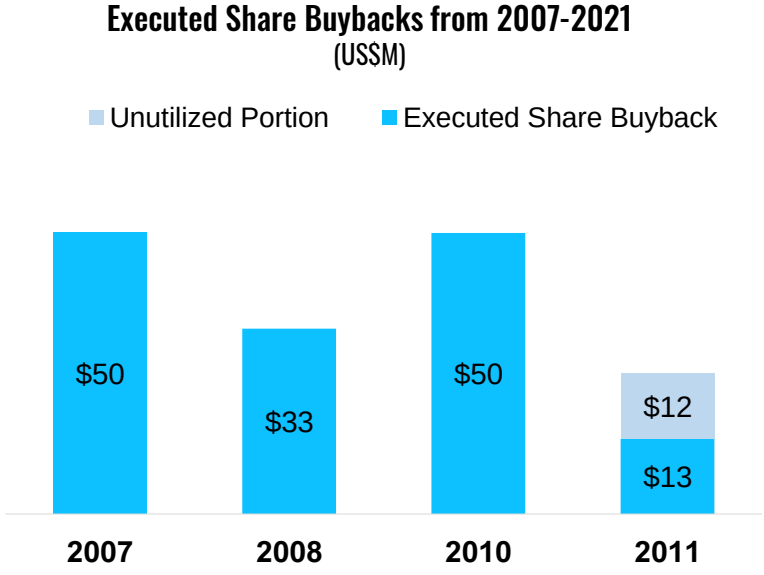
Credit Suisse	Jerry Su
Mizuho Securities Asia Ltd.	Kevin Wang
Nomura Securities	Donnie Teng
Baird Equity Research	Tristan Gerra
Northland Securities, Inc.	Tim Savageaux
Vertical Group	Jonathan Lopez

History of Dividend and Share Buyback

$604 MILLION HAS BEEN RETURNED TO SHAREHOLDERS INCLUDING DIVIDENDS AND SHARE BUYBACKS SINCE IPO



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Dividend per unit	0.20	0.35	0.30	0.25	0.12	0.06	0.25	0.27	0.30	0.13	0.24	0.10	0.00	0.00
EPS	0.57	0.40	0.21	0.19	0.06	0.30	0.36	0.39	0.15	0.30	0.16	0.05	(0.08)	0.27
Yield (%)	4.0	7.0	10.4	9.1	5.9	3.4	4.4	4.1	4.8	1.4	2.9	1.3	na	na



Himax Dividend and Policy

- Distributed a total of $458 million of cash dividend since IPO
- Dividends referenced primarily on prior year's profitability and cash demand for future growth
- Typically pays out annual cash dividend at approximately the middle of the current calendar year, e.g., 2018 dividend payouts in July was for fiscal year 2017
- In 2020, Himax did not pay an annual cash dividend for fiscal year 2019. The decision was made with full consideration of Himax's 2020 operations and capital requirement to support its future growth and to drive gains in market share

Himax Share Buyback

- Initiated four share buyback programs totaling $158 million since 2007
- Repurchased a total of 46.5 million ADSs as of 2012 at average purchase price per ADS: $3.15
- *Note: On 11/30/2018 Himax chairman announced share purchase plan. Chairman Dr. Biing-Seng Wu intended to use his personal funds to purchase up to approximately $5 million of the Company's American Depositary Shares ("ADSs") in the open market, subject to market conditions and other factors*

Q1 Summary and Q2 Guidance

	1Q2021	4Q2020	1Q2020	YoY	QoQ
Revenues	$309.0M	$275.8M	$184.6M	+67.4%	+12.1%
Gross Margin (%)	40.2%	31.2%	22.7%	+17.5%	+9.0%
IFRS Profit (Loss)	$66.9M	$34.0M	$3.3M	+1,930.8%	+96.7%
IFRS Earnings (Loss) per ADS	$0.383	$0.195	$0.019	+1,915.3%	+96.1%
Non-IFRS Profit (Loss)	$67.1M	$34.2M	$3.8M	+1,672.5%	+96.1%
Non-IFRS Earnings (Loss) per ADS	$0.384	$0.197	$0.022	+1,658.9%	+95.5%

	2020	2019	YoY
Revenues	$887.3M	$671.8M	+32.1%
Gross Margin (%)	24.9%	20.5%	+4.4%
IFRS Profit (Loss)	$47.1M	($13.6M)	+446.2%
IFRS Earnings (Loss) per ADS	$0.272	($0.079)	+444.6%
Non-IFRS Profit (Loss)	$52.3M	($12.1M)	+531.5%
Non-IFRS Earnings (Loss) per ADS	$0.302	($0.070)	+529.4%

2Q2021 Guidance

Revenues	Increase by 15% to 20% sequentially
Gross Margin (%)	45.5% to 47.5%, depending on our final product mix
IFRS Profit (Loss)	To be around 54.0 cents to 60.0 cents
Non-IFRS Profit (Loss)	To be around 54.2 cents to 60.2 cents

A Global Semiconductor Company

- Fabless semiconductor company with world leading visual imaging processing technologies
- Global market leader in TFT-LCD display driver and timing controller ICs
- 200+ customers across Taiwan, China, Japan, Korea, U.S. and Europe
- 3,012 patents granted and 534 patents pending approval worldwide as of March 31, 2021
- NASDAQ-listed since March 2006 (HIMX)
- Around 2,000 employees worldwide; more than 90% are engineers
- Headquartered in Tainan, Taiwan with 9 R&D centers in Taiwan, China, Korea, Israel and U.S., out of a total of 24 offices across Taiwan, China, Japan, Korea, Israel and U.S.

Himax's Global Reach

HEADQUARTERS
Tainan, Taiwan

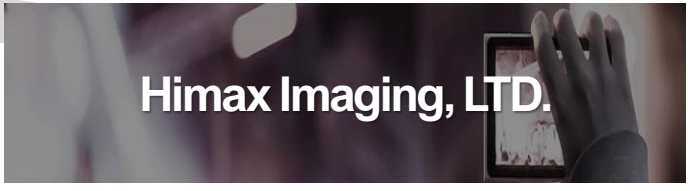
Corporate Structure

Nasdaq Listed

Himax Technologies, Inc.

- TFT-LCD Drivers, EPD Drivers, Micro LED Drivers and AMOLED Drivers
- TCON and Bridge IC
- Touch Controllers
- Pure in-cell Touch (TDDI)
- AIoT Edge AI Processors
- 3D Decoder Processors
- ASIC Service and IP Licensing
- Power Management ICs, P-Gamma OP, Level Shifter and LED Driver
- Wafer Level Optics and 3D Sensing Modules
- In-house Color Filter Fab for LCoS and CIS

- LCoS Modules for Head-Mounted Display, Head-up Display and Pico-projector Applications
- Phase Modulation for Communication, Holographic Displays and AR-HUD
- Light Guide



- CMOS Image Sensors
- Ultralow Power Always-on (AOS) CMOS Image Sensors

Himax

Our Technologies Are Used by Consumer Brands Worldwide

SAMSUNG LG Display lenovo vivo oppo mi Google

Display Driver IC (DDIC)

We are a leader in display driver ICs used to enable large, small and medium-sized flat panel displays in TFT and Touch

MARKETS WE SERVE

Smartphones, Tablets, Automotives, Monitors, Notebooks, TVs, Gaming, Education, Industrial, Healthcare plus 100's more applications for markets and businesses that use all types of flat panel displays

In what devices can you find Himax DDIC technologies

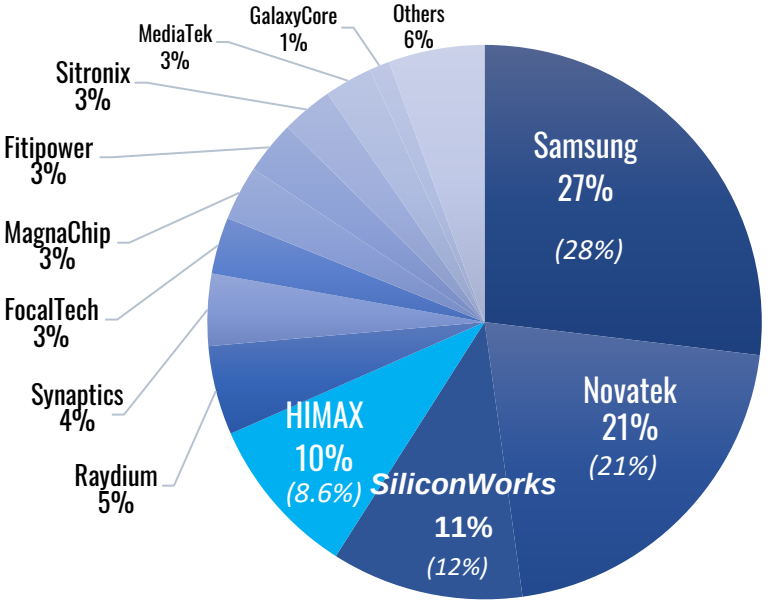
Who uses Himax DDICs

SAMSUNG, SHARP, Panasonic, HKC 惠科股份, BOE, 华星光电 CSOT, KYOCERA, INNOLUX 群創光電, vivo, CEC 中国电子 | CHOT, TRULY, lenovo, TCL, MEIZU, Eink, HannStar, 上海天馬微電子有限公司 SHANGHAI TIANMA MICRO-ELECTRONICS CO., LTD., CEC CHINA ELECTRONICS, TECNO, JDI, mi, AUO, IVO, Japan Display Inc., TOPPAN, LG Display, oppo, AVIC, amazon

Our DDIC Market Share

4Q20 Driver Market Share

(3Q20 Market Share %, Revenue)



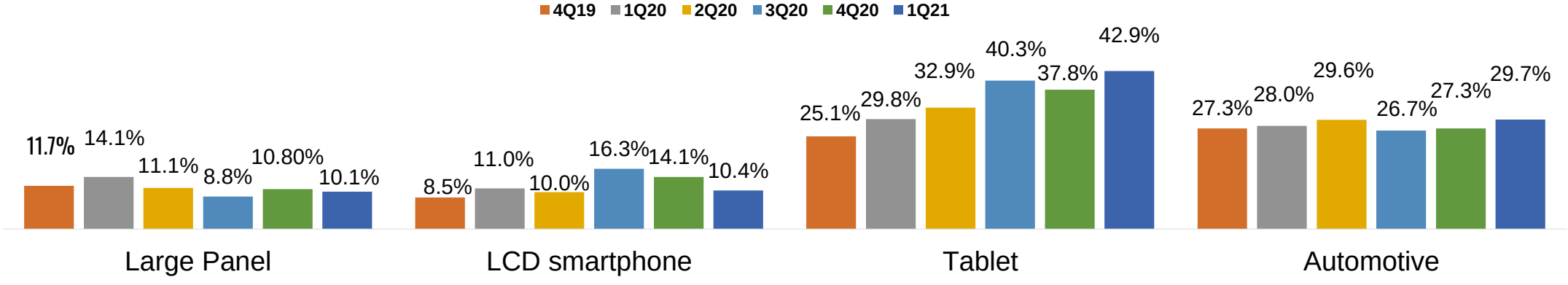
Source: Omdia and company estimates (This covers TFT-LCD and OLED DDICs)

We provide a complete solution of image processing technologies and leverage our expertise in mobile devices and other mass-market technology releases

- Large display driver IC business continues to benefit from Chinese panel customers' capacity expansion as well as Korean fab restructuring
- Strong market share in fastest moving consumer devices including automotive application
- Major TDDI design-wins and shipments for smartphones, tablets and automotive well executed in 2020 and accelerating into 2021

HIMX's Strong Driver IC Market Share in Mass Market Devices

(Quarterly Market Share %, Shipment)



Source: Omdia 1Q 2021 data, IDC and Company Estimates (This covers TFT-LCD DDICs)

TDDI Technologies

We design technologies for touch sensor displays including in-cell touch and the fast-growing segment of Display Driver Integration (TDDI) single-chips

MARKETS WE SERVE

Beginning with smartphones, expanded to tablets, automotive, and many other consumer electronic devices

- Tablet: New in-cell TDDI refreshed tablet life cycle starting 1Q20. Himax, the primary source for Android tablet tier-1 customers, expects continuous growth in 2021
- Automotive: Himax's TDDI selected by many leading tier-1 and OEMs for their upcoming first launches of new vehicles. Expect meaningful full production shipments in 2021
- Smartphone: LCD TDDI widely adopted for entry & mid-range smartphones with penetration >50% and rapidly replacing traditional DDIC

In what devices can you find Himax TDDI technologies

A-Si HD+ Smartphone

LTPS FHD+ and HD+ Smartphone

8" and Large-sized Tablets, In-cell TDDI

Tablet PC & Smart Speaker

Auto CID & Infotainment

Who uses Himax Touch and TDDI Technologies

oppo mi JAGUAR lenovo SAMSUNG SONY Mercedes-Benz vivo

WLO and 3D Sensing

We offer industry leading WLO design know-how and mass production expertise in structured light and ToF. Himax 3D sensing offers SLiM total solution with leading face recognition feature and key components, 3D decoder IC, to reach out diversified customers' end applications

MARKETS WE SERVE

Wafer Level Optics (WLO):

- DOE, diffuser, lens and other nanoimprinting diffraction optics for structured light, ToF and others. Accelerating new design activities of ToF projectors in world-facing ToF 3D sensing camera for smartphone
- Waveguide for AR and LCoS. Lens for CIS

3D Sensing:

- e-payment, smart door lock, access control, medical inspection, shoe cementing and industrial robotics

In what applications can you find Himax WLO and 3D Sensing

3D Ecosystem Partners

CyberLink

图语科技

iCatch Technology

国家金融科技测评中心 National FinTech Evaluation Center 银行卡检测中心 Bank Card Test Center

Others

CIS and Ultralow Power Smart Sensing

AI Ecosystem Partners

Google TensorFlow Lite for Microcontroller
Microsoft Azure
emza visual sense
EDGE IMPULSE
图语科技
Nalbi
sparkfun START SOMETHING
OMRON
Cyberon Leading Speech Solution Provider
ECO-LUX

Himax CMOS image sensors include RGB, near infrared (NIR) and ultralow power Always-on Sensor (AoS). Our smart sensing total solution brings computer vision AI to edge devices with extremely low power consumption. Our key component, AI processor and AoS sensor, participated Tier-1 edge-to-cloud ecosystems for broad market access

MARKETS WE SERVE

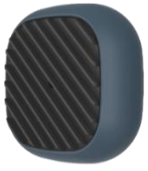
CIS:

- **Ultralow power AoS:** Best for IoT/smart sensing in human/ occupancy detection, eye tracking & gesture control
- **NIR:** 3D sensing and smart sensing
- **RGB:** NB and web camera

Smart Sensing:

- NB, TV, air conditioner, automotive, panoramic video conferencing, utilities meter, QR code reader, doorbell, door lock, smart buildings, manufacturing, retail, agriculture, etc.

In what applications can you find Himax 3D/Smart Sensing technologies





LCoS Microdisplays

We are the leader and long-term innovator of Liquid Crystal on Silicon (LCoS) displays and one of the companies capable of high-volume production runs of LCoS displays for the launch of mass-market devices

Front-Lit LCoS Technology Advantages

- Compact form factor, brightness, power efficiency
- Simpler optical engine design and lower cost

MARKETS WE SERVE

LCoS and Front-Lit LCoS

- Industrial, consumer, shopping, search, gaming, sports, pico projector, AR/VR smart glasses, automotive head-up displays, Tier-1 OEM's market leading AR glasses

Phase Modulation and Beam Steering

- Holographic display, AR-HUD, WSS, ADAS and LiDAR

Who uses Himax LCoS micro display technologies

Optinvent Google lenovo LUMUS LUMOTIVE

Our Customers

DISPLAY DRIVERS

WAFER LEVEL OPTICS

CMOS IMAGE SENSORS

ASIC SERVICE & IP LICENSNING

LCOS MICRODISPLAYS

TDDI & TOUCH CONTROLLERS

POWER MANAGEMENT IC & LED DRIVERS

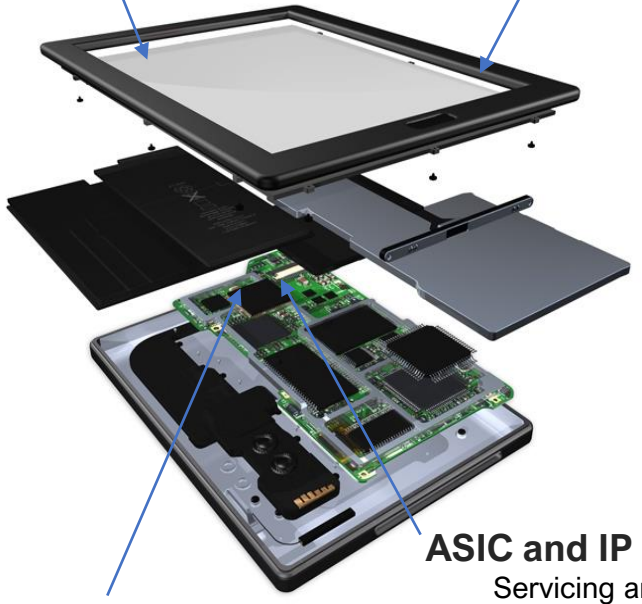
TIMING CONTROLLERS

We are In Displays

Display Driver
TCON
PMIC
LED Driver
P-gamma OP

On Touch Panels

Controller IC



ASIC and IP

Servicing and licensing

In Camera Modules

CMOS Image Sensor
Wafer Level Optics

In AR Devices

LCOS, WLO

In VR Devices

Fabless Manufacturing Expertise

Himax

Display Driver

Wafer Fabrication

SK hynix system ic
MX LISTED NYSE
力積電
UMC
VIS
Nexchip
华虹-NEC
SMIC
tsmc
GLOBALFOUNDRIES
MXIC

Gold Bumping

CHIPBOND Chipbond Technology Corporation.
CHIPMORE
LB Semicon
ChipMOS
UNIONSEMICON

Processed Tape

CHIPBOND Chipbond Technology Corporation.
STEMCO
LG Innotek
JMC 易華電子股份有限公司 JMC ELECTRONICS CO.,LTD.

Chip Probe Testing

CHIPBOND Chipbond Technology Corporation.
CHIPMORE
ChipMOS
UNIONSEMICON
LB Semicon
Micro Silicon
YTEC
KYEC

Assembly and Testing

CHIPBOND Chipbond Technology Corporation.
CHIPMORE
ChipMOS
LB Lusem
LUSEM
UNIONSEMICON
YTEC
KYEC

CMOS Image Sensor Back-end

Package

Xintec
KINGPAK
LCSP MINIATURIZATION PROCESS
networks

FT

Yate
networks

Chip Probe Testing

KYEC

RW

th

SOC

Chip Probe Testing

KYEC
Global Testing Corporation 實邦科技股份有限公司
GREATEK ELECTRONICS INC. 超豐電子股份有限公司
Silicon 微矽電子

Package

OSE A partner you can count
台灣典範半導體 Taiwan IC Packaging Corporation
長电科技 CHANGJIANG ELEC.TECH.
ASE GROUP
GREATEK ELECTRONICS INC. 超豐電子股份有限公司
矽格股份有限公司

FT

矽格股份有限公司
長电科技 CHANGJIANG ELEC.TECH.
GREATEK ELECTRONICS INC. 超豐電子股份有限公司
ASE GROUP
KYEC
Global Testing Corporation 實邦科技股份有限公司
OSE A partner you can count
Ardentec 欣銓科技

Market Opportunities by Product Application and Himax Strategies

TDDI

Market Trends

- Expect higher TDDI penetration in tablet, and auto going forward
- OEMs are meeting consumer demand for slimmer devices
- Higher penetration of TDDI is refreshing smartphone and tablet life cycle, creating higher dollar content and margin opportunities
- Panel size and quantity inside the car are increasing, driving higher demand of TDDI of automotive

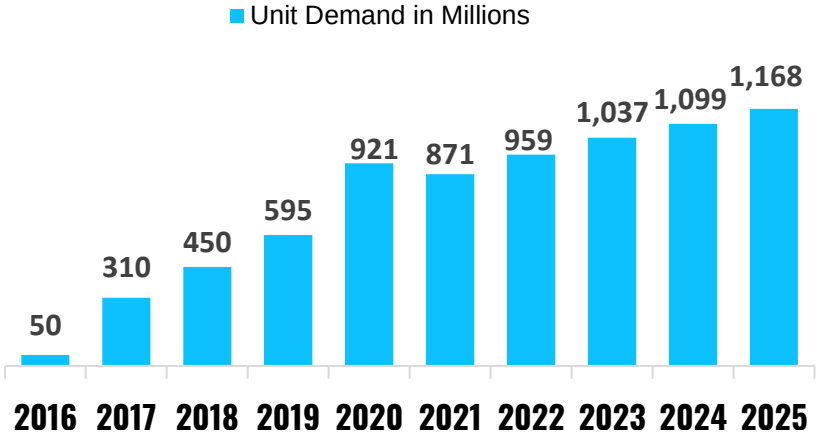
Himax Strategies and Market Position

TDDI pure in-cell solution

- TDDI is the biggest growth driver for Himax from 2020. Amid semiconductor capacity shortage, we strategically favor high margin product segments such as tablet and automotive as we are the main or sole supplier to customers
- In-cell TDDI becoming mainstream for Android tablet, where Himax is the primary source. Mass production started for major Tier-1 OEMs since 1Q20, with robust growth in 2020 and beyond
- Himax is the dominant automotive TDDI technology provider with mass production experience and advanced specification for leading panel makers. Although only small volume shipments in 2020, we anticipate meaningful shipment volume starting 2H 2021
- Numerous new design-wins and shipment with top-tier tablet and smartphone makers and most all panel makers in China started 4Q19
- A robust regain in market share of our smartphone in 2020

Global TDDI Demand Forecast 2016-2025

All applications. In Millions of Units
(Omdia, 2021)



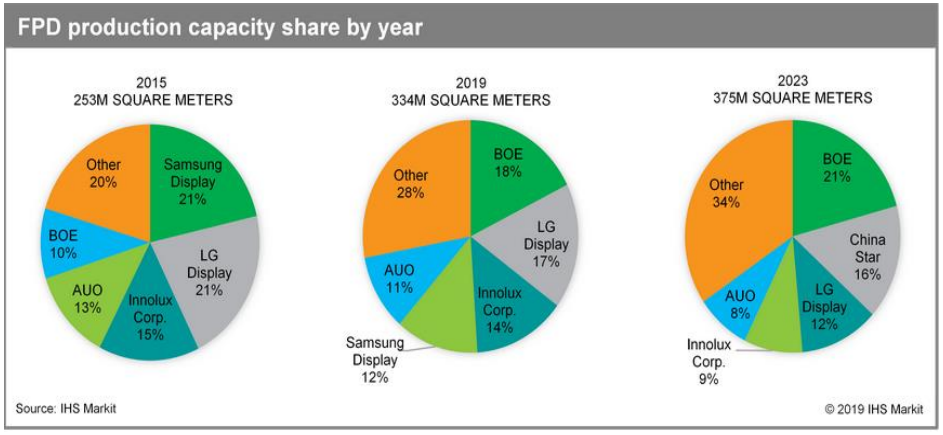
TDDI Technology Enables OEMs to Manufacture Thinner, Better and Less Expensive Phones

Display Driver IC (DDIC)

Market Trends

- Chinese panel makers, benefited from Korean fab restructuring and increased their global market share, will procure more volume from Taiwan DDIC supply chain
- Leading Chinese panel makers' shipments continue to dominate the market. China ranked the No. 1 position with its total TFT-LCD capacity
- 4K TV penetration accelerates; 8K TV started to emerge
- Demand for IT panel (monitor and NB) surged in 2020 due to the pandemic
- Demands for more sophisticated and higher performing displays are rising in the automotive segment

China Takes a Leading Role in Display Panel Manufacturing and DDIC Demand



Himax Strategies and Market Position

- Leading market share of large DDIC in China
- Major beneficiary of Industry and Korean fab restructuring which will increase Chinese panel maker's global market share
- Increased shipments of 4K solutions. Collaborate with major panel makers on the development of next generation 8K TVs. 8K TV is a strategic area for Himax due to its higher display driver and Tcon content and high technical barrier of entry
- Leader in higher frame rate and low power solution in high end gaming monitor and NB market
- Not only DDIC, Himax also provides comprehensive TCON lineups for a total solution to meet demands of high resolution, high frame rate and low power display

WLO and 3D Sensing

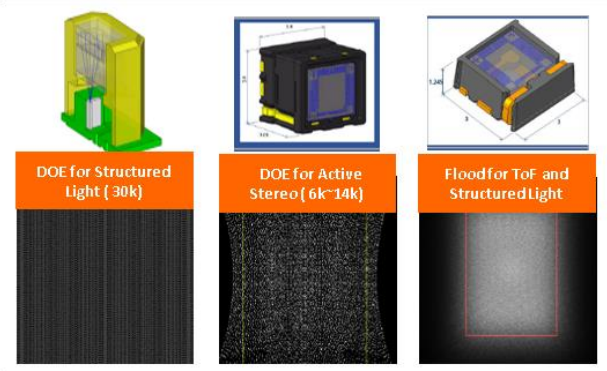
Market Trends

- Wafer-Level Optics (WLO) remains the best technology for structured light, Time-of-Flight (ToF) related 3D sensing
- Very few companies can provide advanced WLO solutions to achieve optical high efficiency, small form factors, and eye safety regulations for consumer devices
- 3D sensing adoption is expected to be wider for Android smartphones, AR/VR and AIoT devices

Himax Strategies and Market Position

- WLO: Exceptional design know-how and mass production expertise deliver consistent product quality and high yields for WLO anchor customer's large-scale adoption since 2015 with ongoing shipment in 2020
- Continue to participate the most advanced 3D sensing projects covering structured light for non-smartphone application and ToF for smartphone 3D
- ToF in main camera for Android smartphone will be the largest new growth opportunity for Himax moving forward. Collaborating with tier-1 laser and sensor partners to develop new world-facing 3D sensing camera for tier-1 OEM whereby we provide optical components and/or projectors, which are critical for the performance of the whole ToF solution
- Offer market leading 3D decoder ASIC to customers wishing to design own structured light 3D sensing solution to reach out broader market. Good achievement in e-payment engagement in China
- In non-smartphone, working with industry-leading facial recognition algorithm and application processor partners to develop new 3D sensing application for business access control, medical inspection, etc.
- 3D sensing will be the growth opportunity for Himax beyond 2021

Himax WLO for 3D Sensing



Wafer Level Process
Integrated Optics
High Accuracy
Scalability In Production

Mini Package
Ultra Small Size & Package

WLO for 3D ToF / Structured Light

Ultralow Power Smart Sensing and CIS

Market Trends

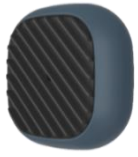
- Smart AI devices demand boosted, but very few companies can provide ultralow power solutions in vision AI in the area of human detection, people tracking, people counting, and anti-peeking warning
- Adoption for AI-based, ultralow power smart sensing solution is expected to be wider in 2021 for AIoT applications, including smart home, smart building, and devices for industrial, tracking and AR/VR purposes

Himax Strategies and Market Position

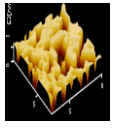
- Himax Ultralow Power CMOS Image Sensor (CIS):
  - Industry first ultralow power and low latency back-illuminated CIS solution for always on, intelligent visual sensing
  - Our CIS includes near infrared (NIR) sensors for 3D sensing and ultralow power computer vision Always-on-Sensor (AoS). Good for smart building and security applications, next generation NB, and AR/VR for mobile devices
  - Support qqHD/QVGA/VGA AoS and industrial first 2-in-1 RGB/NIR/AI sensor
  - Reference design win for Google TensorFlow Lite
- Himax Smart Sensing:
  - WiseEye solution, containing Himax's industry leading AoS, AI processor and TinyML AI algorithm, meets strong demands for edge AI devices with features of ultralow power and optimized computer vision-based total solutions in such application as NB, TV, air conditioner, surveillance, door lock, doorbell and many other. Received sizable orders for mainstream application from an existing global client. Expect shipment in 4Q21
  - Collaborated with Google to offer TensorFlow Lite for Microcontrollers (TFLu) ecosystem, where developers can train and deploy the TFLu model/inference on to the TFLu kernel with ease
  - For WiseEye WE-I Plus, an edge AI computing ASIC solution, we proactively participate the edge-to-cloud ecosystem and work closely with machine learning framework provider, AI algorithm developers, cloud service providers and OEM/ODM to provide flexible and cost-effective AIoT platform to fulfill this booming but diversified market. Himax AIoT NB-IoT platform received Microsoft Azure IoT PnP Certification in March 2021

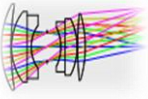
Who uses Himax CIS

Ultralow Power Sensor Applications



Best For IoT/Smart Sensing
Face/Body Detection,
Eye Tracking & Gesture Control,
3D Depth Sensing





Google TensorFlow Lite for Microcontroller
Microsoft Azure
图语科技
emza visual sense
sparkfun START SOMETHING
EDGE IMPULSE
OMRON
Cyberon Leading Speech Solution Provider
Nalbi
ECO-LUX

GROWTH OPPORTUNITY 5

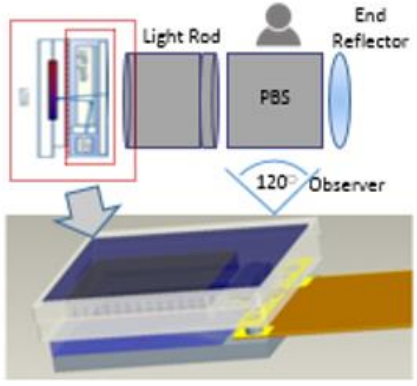
LCoS Microdisplays

Market Trends

- Many top name multinationals and start-ups are investing heavily to develop the AR ecosystem, including applications, software, operating systems, system electronics and optics
- Capabilities in technology know-how and scalable manufacturing are significant barriers of entry to new market entrants and existing technology companies
- Himax can provide the integrated services of R&D, joint development and manufacturing expertise

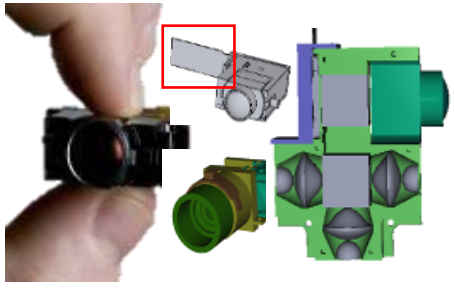
Himax Strategies and Market Position

- The leader in microdisplays with patent-protected technology, in-house facilities and shipping record of > 2M units
- Focus on AR goggle devices and HUD for automotive applications
- Customer list of AR goggle device covers many the world's biggest tech giants. Many of whom demoed their new AR goggles at CES 2020
- On-going collaboration with global Tier 1 AR glasses device manufacturers since 2011
- Design-wins of high-end HUD for the automotive sector, target 2022 MP
- LCoS is one of the mainstream technologies for AR goggle devices
- LCoS represents a long-term growth opportunity for Himax

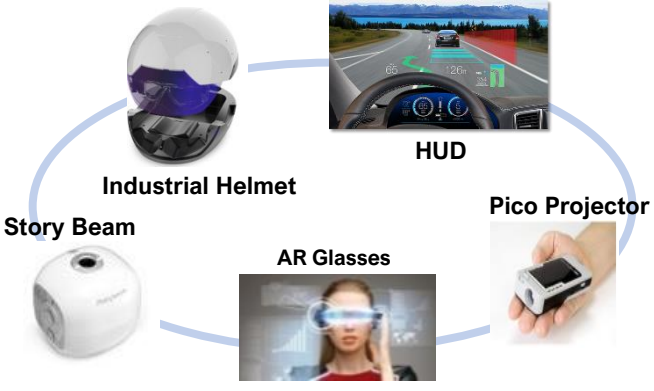


Front Lit LCOS Advantages

- Compact Form Factor
- Brightness
- Power Efficiency
- MP Efficiency & Readiness



Optical Engine with LCOS Module

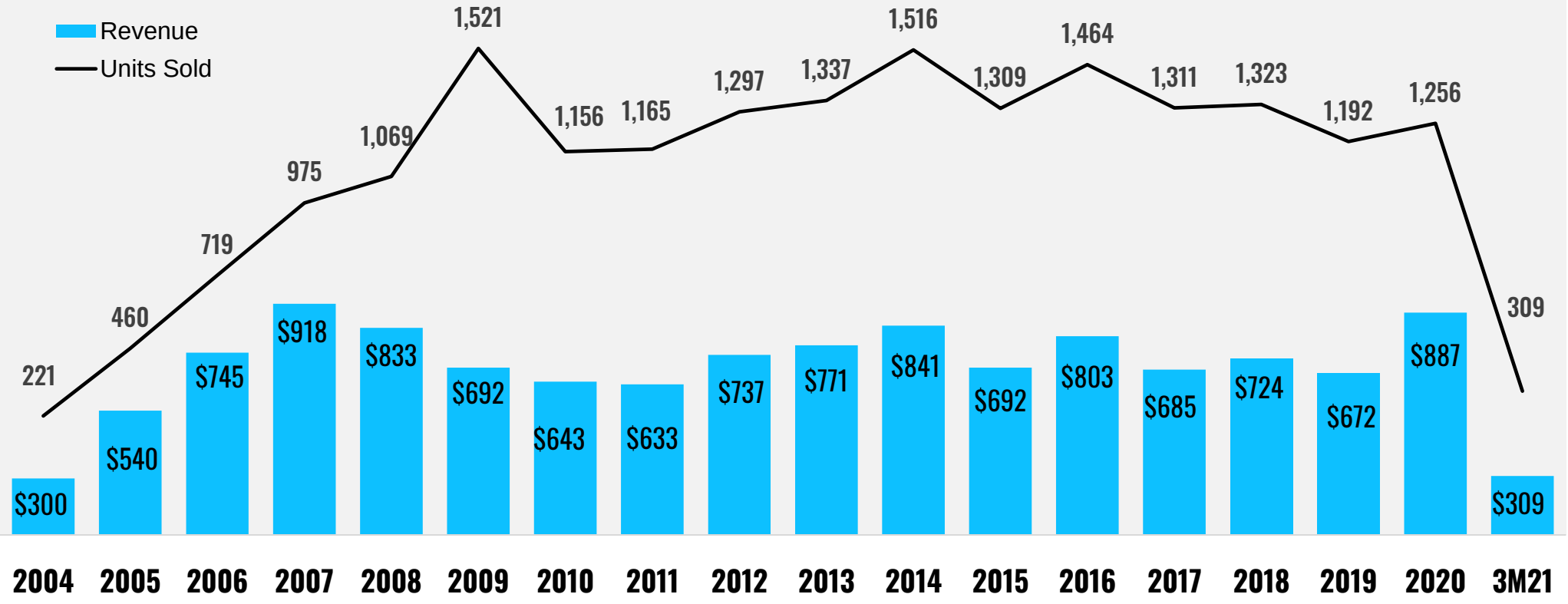


2021 YTD
Financial Review

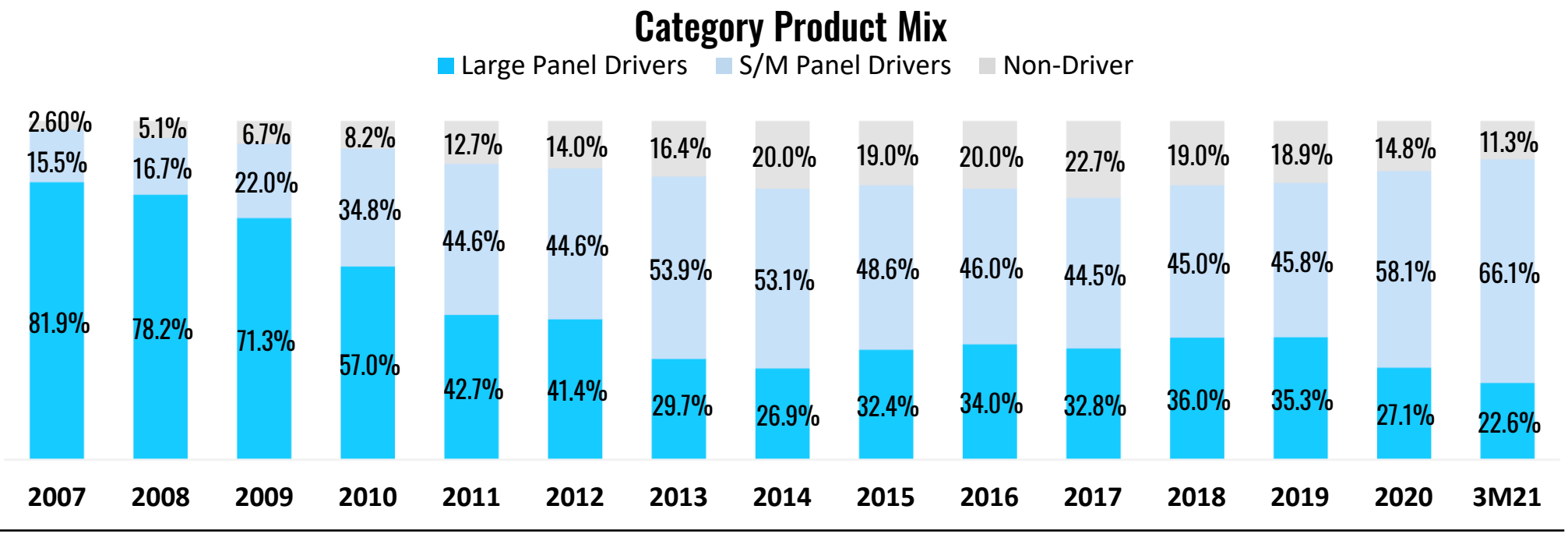
Unit and Revenue History

We are One of the Leading Semiconductor Companies in the World

Units Sold and Revenue (in millions of units and millions of USD)



A Balanced Product Mix…



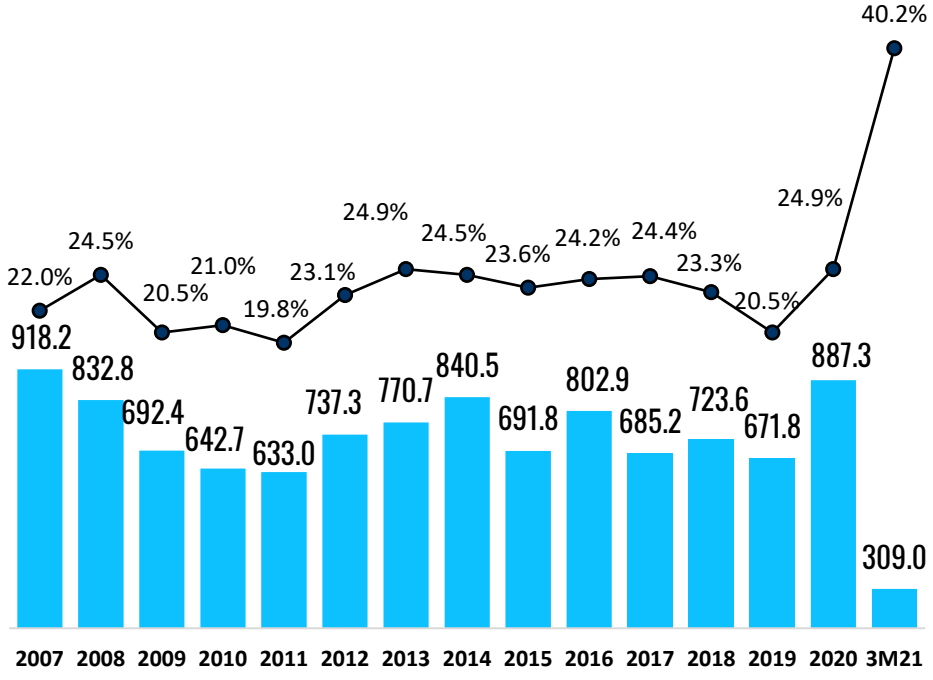
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	3M21
Revenue (US$M)	$918	$833	$692	$643	$633	$737	$771	$841	$692	$803	$685	$724	$672	$887	$309

- Global market leader in driver ICs for large and small & medium-sized panels
  - Market leader in tablet TDDI with mass production from 2020 Q1. Strategically favoring tablet over smartphone for high margin amid short capacity
  - Continuous growth in smartphone segments with selected customers amid short capacity
  - Advantages of leading technology and mass production record in automotive driver. Expect further market share gains with major panel customers and automotive TDDI
- Innovative technologies in advanced Wafer Level Optics, CIS, Smart Sensing and LCoS microdisplays
  - Market leader in 3D sensing for both Structured Light and TOF
  - The first to offer 2-in-1 ultralow power sensor with RGB and IR/AI features
  - Collaborate with global edge-AI solution partners by actively engaging edge-to-cloud platforms
  - Top choice of global leaders to jointly develop AR technology
  - Flexible business models by providing a total solution and key components
  - Our non-driver category enjoys diversified customer base, strengthened product mix and higher gross margin than corporate average

Gross Margin is a Key Business Focus

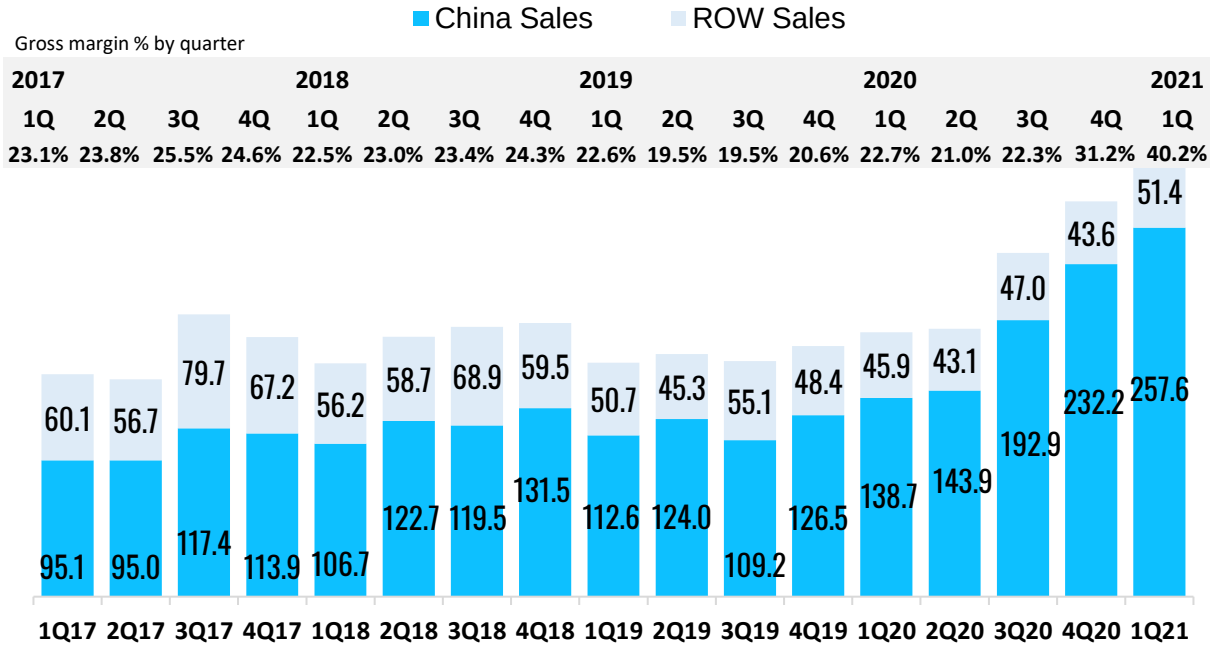
Revenue & Gross Margin

US$M in Revenue and Gross Margin %



Geographical Revenue Mix & Quarterly GM

US$M in Revenue and Quarterly Gross Margin %



Margin improved with favorable product mix

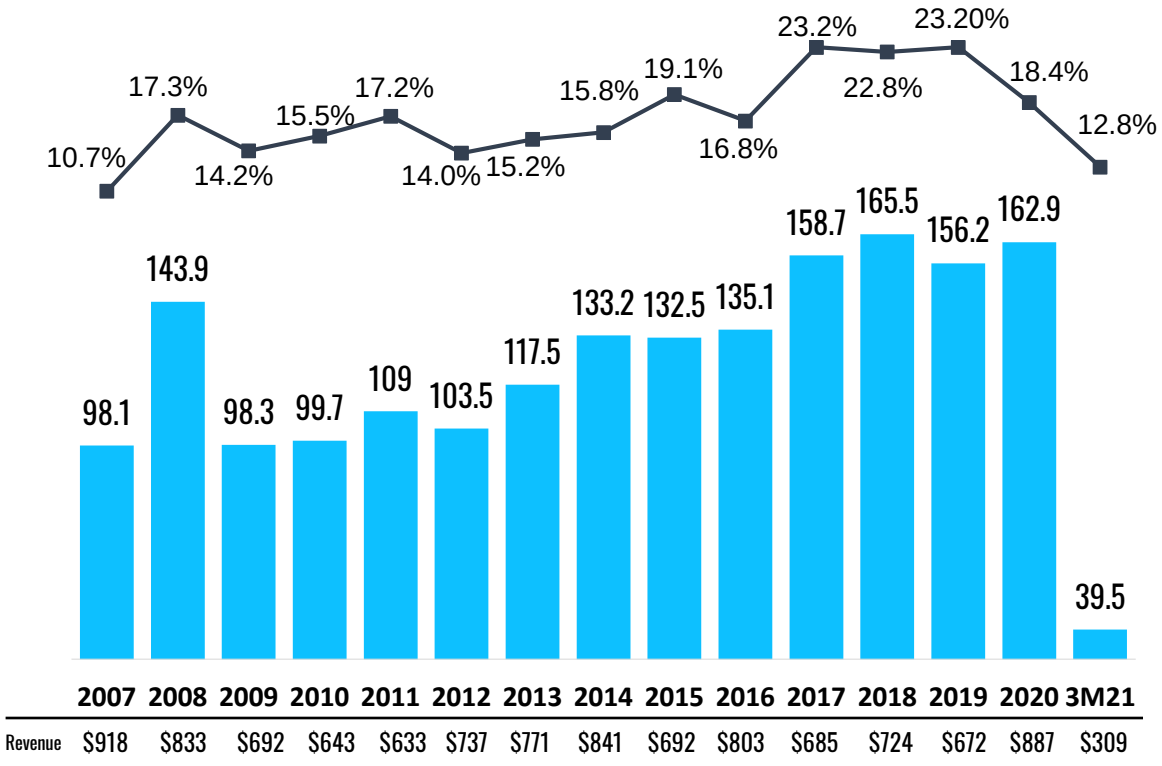
- Revenue growth with improved gross margin in 2020 due to favorable product mix and clientele
- High margin segments supporting a long- term growth
  - Leadership in tablet: a major supplier with leading technology spec.
  - Leadership in auto: a major supplier with leading technology spec. Demand unfolding with a trend in electric vehicle and auto pilot
  - New revenue stream: ultralow power and always on sensor much needed for edge AI devices
- In a prolonged period of capacity shortage, we raise price to reflect rising costs in foundry

- Improved GM in 2H vs.1H in 2017 driven by more favorable product mix, due to WLO shipments and the one-off customer reimbursements related to AR goggle device in Q3
- 2019 GM declined due to adverse product mix change
- 2020 GM set a record high due to continuous strong demand after the pandemic and favorable product mix amid capacity shortage
  - Strong demand for monitor and notebook
  - Strong growth in smartphone and tablet, especially TDDI
  - Auto demand rebound amid increasing demand for EV and autonomous drive
  - Better product pricing on rising material costs across foundry, assembly and testing
- 1Q21 GM continued to set a new high for favorable product mix amid capacity shortage

OPEX and the Bottom Line

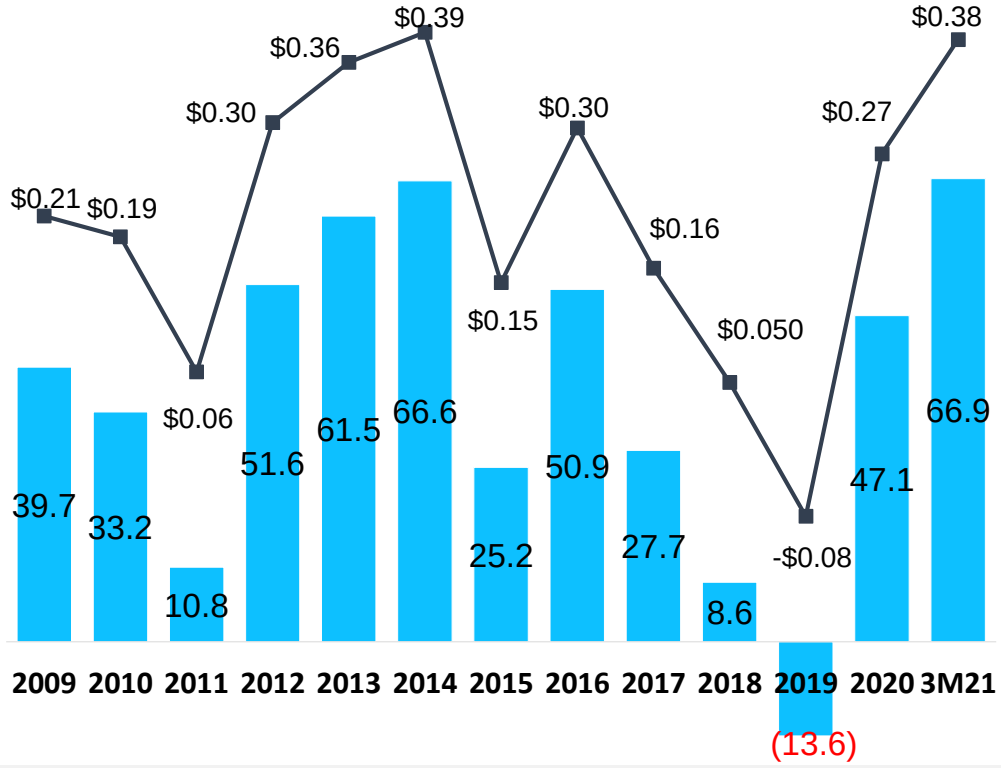
OPEX and % of Total Sales

(US$M/ %)



Profit and EPS

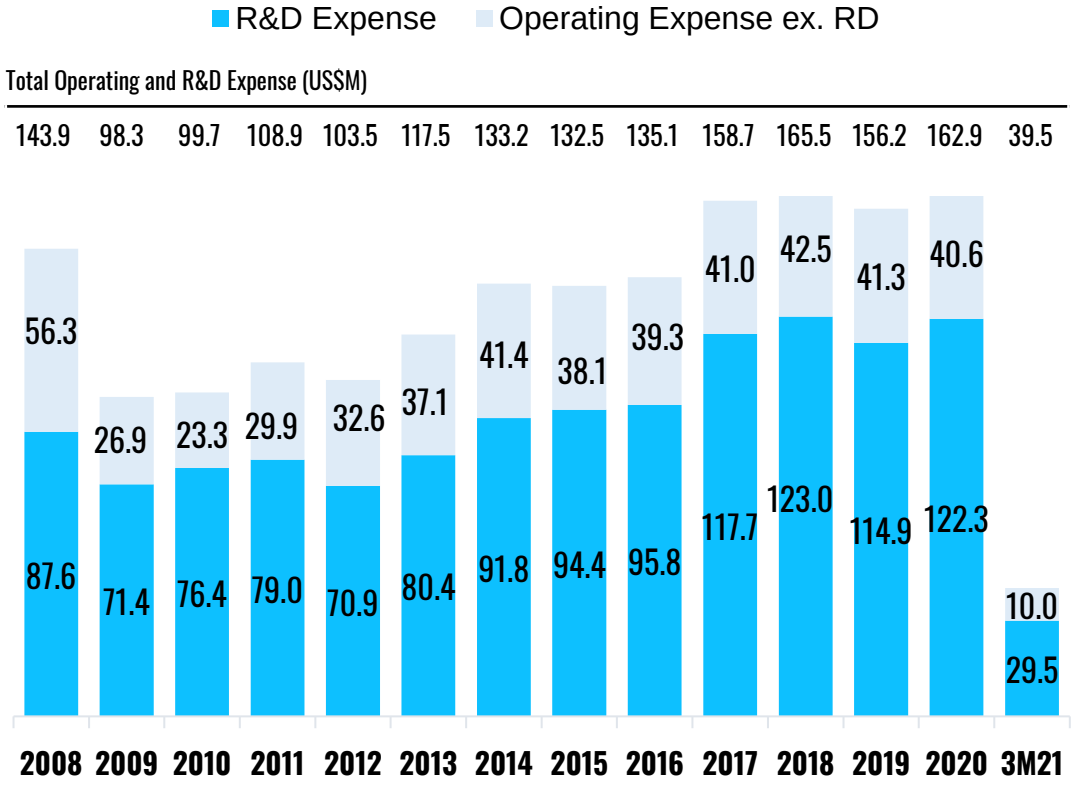
(US$M/ US$)



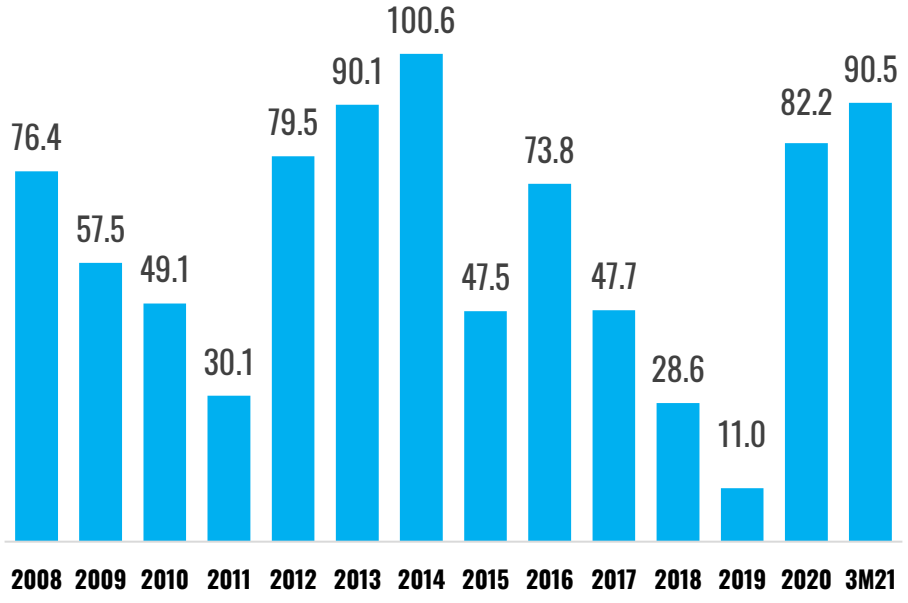
- Higher capex to meet the demands of 3D sensing total solution, projector module or optics in 2018 & 2019
- Completion of the new WLO facility in 2019, including additional WLO capacity, active alignment equipment and extra office
- Continuous commitment to R&D and customer engineering for strategic area with great growth potential in the future
- Profit declined in 2019 due to adverse product mix change, weaker market demand and intensified competition
- OPEX in 2020 up 4.2% YoY. Operating expense ratio reduced from 21.4% in Q4 2019 to 15.9% in Q4 2020, reflecting our careful management over operating expenses

Performance History

Operating and R&D Expenses (US$M)



EBITDA (US$M)



- Well-manage R&D investment and expense for customer engineering for strategic growth areas including WLO, CIS, TDDI, Auto and AMOLED
- Share-based compensation included in OPEX from 2014 to 2020: $11.1mn, $6.2mn, $10.2mn, $6.9mn, $4.1mn, $0.4mn and $5.4mn

- Robust profit growth in 2016 as a result of revenue growth and GM enhancement from new product
- 2019 profit setbacks caused by lower gross margin due to adverse product mix change
- 2020 gross margin improvement for strong demand after the COVID-19. Product mix improved with short capacity

Income Statement

(US$'000, Except for Per Share Data)

For the Fiscal Period Ended	1Q-2021 (Unaudited)	1Q-2020 (Unaudited)	4Q-2020 (Unaudited)	Y2020 (Audited)	Y2019 (Audited)
Revenues	**$309,003**	**$184,594**	**$275,770**	**$887,282**	**$671,835**
Cost of revenues	**184,722**	**142,672**	**189,774**	**666,501**	**533,916**
Gross profit	**124,281**	**41,922**	**85,996**	**220,781**	**137,919**
Gross margin	***40.2%***	***22.7%***	***31.2%***	***24.9%***	***20.5%***
Operating expenses					
Research and development	**29,523**	**27,689**	**33,100**	**122,265**	**114,859**
General and administrative	**5,772**	**5,804**	**5,919**	**23,915**	**23,672**
Sales and marketing	**4,186**	**3,782**	**4,787**	**16,675**	**17,695**
Total operating expenses	**39,481**	**37,275**	**43,806**	**162,855**	**156,226**
Operating income (loss)	**84,800**	**4,647**	**42,190**	**57,926**	**(18,307)**
Non-operating income (loss)	**194**	**(373)**	**(85)**	**(1,054)**	**2,539**
Profit (loss) before income taxes	**84,994**	**4,274**	**42,105**	**56,872**	**(15,768)**
Income tax expense	**18,699**	**1,464**	**8,759**	**11,712**	**416**
Profit (loss) for the period	**66,295**	**2,810**	**33,346**	**45,160**	**(16,184)**
Add: Loss attributable to noncontrolling interests	**601**	**484**	**660**	**1,974**	**2,570**
Profit (loss) attributable to Himax stockholders	**$66,896**	**$3,294**	**$34,006**	**$47,134**	**($13,614)**
Non-IFRS profit (loss) attributable to Himax stockholders	**$67,108**	**$3,786**	**$34,218**	**$52,330**	**($12,128)**
IFRS earnings (loss) per ADS attributable to Himax stockholders (in cents)					
Basic	**38.4**	**1.9**	**19.6**	**27.3**	**(7.9)**
Diluted	**38.3**	**1.9**	**19.5**	**27.2**	**(7.9)**
Non-IFRS earnings (loss) per ADS attributable to Himax stockholders (in cents)					
Basic	**38.5**	**2.2**	**19.7**	**30.3**	**(7.0)**
Diluted	**38.4**	**2.2**	**19.7**	**30.2**	**(7.0)**

Balance Sheet

(US$'000)

	March 31, 2021 (Unaudited)	December 31, 2020 (Audited)	March 31, 2020 (Unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$227,378	$184,938	$115,677
Financial assets at amortized cost	11,881	8,682	10,888
Financial assets at fair value through profit or loss	6,561	7,799	0
Accounts receivable, net (including related parties)	289,096	243,626	186,735
Inventories	114,945	108,707	148,431
Restricted deposit	114,800	104,000	164,000
Other current assets	36,533	36,659	25,751
Total Current Assets	**801,194**	**694,411**	**651,482**
Financial assets at fair value through profit or loss	13,930	13,966	13,435
Financial assets at fair value through other comprehensive income	541	742	689
Equity method investments	3,944	3,983	3,655
Property, plant and equipment, net	136,250	132,074	136,300
Goodwill	28,138	28,138	28,138
Other assets	37,336	36,504	25,098
Total Assets	**$1,021,333**	**$909,818**	**$858,797**
Liabilities and Equity			
Current liabilities:			
Short-term unsecured borrowings	$0	$0	$67,871
Current portion of long-term unsecured borrowings	6,000	6,000	0
Short-term secured borrowings*	104,000	104,000	164,000
Accounts payable (including related parties)	192,493	173,471	145,599
Other current liabilities	84,555	68,771	40,701
Total Current Liabilities	**387,048**	**352,242**	**418,171**
Long-term unsecured borrowings	51,000	52,500	0
Other liabilities	31,132	19,877	6,215
Himax stockholders' equity	547,732	480,176	431,945
Noncontrolling interest	4,421	5,023	2,466
Total Liabilities and Equity	**$1,021,333**	**$909,818**	**$858,797**

* Short-term secured borrowing is guaranteed by restricted deposit

Cash Flow Statement

(US$'000)

	1Q-2021 (Unaudited)	4Q-2020 (Unaudited)	2020FY (Audited)	2019FY (Audited)
Profit (loss) for the period	**$66,295**	**$33,346**	**$45,160**	**($16,184)**
Depreciation and amortization	5,272	6,431	23,596	24,399
Expected credit loss recognized on accounts receivable	0	0	0	67
Share-based compensation expenses	0	0	763	457
Gain on disposal of property, plant and equipment, net	0	0	(244)	(90)
Changes in fair value of financial assets at fair value through profit or loss	33	(489)	(472)	(3,746)
Interest income	(195)	(151)	(967)	(2,013)
Finance costs	260	247	1,705	2,325
Income tax expense	18,699	8,759	11,712	416
Share of losses of associates	274	368	638	477
Inventories write downs	2,475	2,224	11,919	25,447
Unrealized foreign currency exchange losses (gains)	(725)	(221)	(239)	121
	92,388	50,514	93,571	31,676
Changes in:				
Decrease (increase) in accounts receivable (including related parties)	(45,470)	(22,140)	(78,297)	23,992
Decrease (increase) in inventories	(8,713)	16,418	24,772	(6,660)
Increase (decrease) in accounts payable (including related parties)	19,122	18,502	57,335	(36,180)
Others	3,467	4,538	8,675	(420)
Cash generated from operating activities	60,794	67,832	106,056	12,408
Interest received	90	217	1,066	2,060
Interest paid	(270)	(313)	(1,811)	(2,372)
Income tax paid	(294)	(28)	(2,701)	(4,440)
Net cash provided by operating activities	**$60,320**	**$67,708**	**$102,610**	**$7,656**
Acquisitions of property, plant and equipment	(2,016)	(824)	(5,786)	(45,922)
Acquisitions of financial assets at amortized cost	(3,979)	(801)	(3,829)	(4,023)
Proceeds from disposal of financial assets at amortized cost	677	737	6,735	4,171
Acquisitions of financial assets at fair value through profit or loss	(3,546)	(6,608)	(19,743)	(50,487)
Proceeds from disposal of financial assets at fair value through profit or loss	4,747	1,603	12,068	50,648
Others	(12,338)	(10,280)	(11,810)	(2,154)
Net cash used in investing activities	**($16,455)**	**($16,173)**	**($22,365)**	**($47,767)**
Payments of cash dividends	0	0	(4)	0
Proceeds from short-term unsecured borrowings	10,000	0	208,137	244,224
Repayments of short-term unsecured borrowings	(10,000)	0	(265,355)	(207,006)
Proceeds from long-term unsecured borrowings	0	0	60,000	0
Repayments of long-term unsecured borrowings	(1,500)	(1,500)	(1,500)	0
Proceeds from short-term secured borrowings	97,000	47,000	278,000	158,000
Repayments of short-term secured borrowings	(97,000)	(47,000)	(338,000)	(158,000)
Release of restricted deposit	0	0	60,000	0
Others	147	2,513	1,983	(1,957)
Net cash provided by (used in) financing activities	**($1,353)**	**$1,013**	**$3,261**	**$35,261**
Effect of foreign currency exchange rate changes	(72)	567	377	(532)
Net increase (decrease) in cash and cash equivalents	**$42,440**	**$53,115**	**$83,883**	**($5,382)**
Cash and cash equivalents at beginning of period	**$184,938**	**$131,823**	**$101,055**	**$106,437**
Cash and cash equivalents at end of period	**$227,378**	**$184,938**	**$184,938**	**$101,055**

Management Team

Dr. Biing-Seng Wu, Chairman of the Board - Dr. Wu, the founder of Himax, previously served as President, CEO and a Director of Himax Taiwan. As a pioneer of TFT-LCD panel industry in Taiwan, Dr. Wu has been active in the TFT-LCD panel industry for over 20 years. With 61 patents related to Flat Panel Display granted worldwide, Dr. Wu has made significant contributions to Taiwan panel industry including the completion and operation of Taiwan's very first TFT-LCD plant, the winner of Outstanding Industry Contribution Award at the Gold Panel Awards 2009 from Ministry of Economic Affairs, etc. Dr. Wu holds a B.S. degree, an M.S. Degree and a Ph.D. Degree in Electrical Engineering from National Cheng Kung University. With well-recognized outstanding research and development capabilities, Dr. Wu received numerous awards including National Invention Award of Taiwan from Taiwan Executive Yuan in 1992, Research Achievement Awards from Industrial Technology Research Institute for two consecutive years in 1992 and 1993, ERSO Award from Pan Wen Yuan Foundation in 2008, etc.

Jordan Wu, President, CEO and Director Mr. Jordan Wu, co-founder of Himax, previously served as the chairman of the board of Himax Taiwan from April 2003 to October 2005. Prior to joining Himax Taiwan, he served as CEO of TV Plus Technologies, Inc. and CFO and executive director of DVN Holdings Ltd. in Hong Kong. Prior to that, he was an investment banker in Hong Kong with Merrill Lynch (Asia Pacific) Limited, Barclays de Zoete Wedd (Asia) Limited and Baring Securities. Mr. Wu holds a B.S. degree in Mechanical Engineering from National Taiwan University and an M.B.A. degree from the University of Rochester.

Jessica Pan, Chief Financial Officer - Jessica joined Himax in 2006 with over 22 years of experience in finance and accounting. Jessica has played an integral role at Himax on finance, accounting, financial planning and analysis, forecasting and tax, having served as interim Chief Financial Officer from October 2010 to January 2012. Prior to joining Himax, Jessica worked as Assistant Finance Manager for Advanced Semiconductor Engineering, Inc. from 2002 to 2006 and as Auditor at Arthur Andersen LLP in Taiwan from 1998 to 2001. She holds a B.S. degree in Agriculture Chemistry from National Taiwan University and an M.B.A. degree from the State University of New York at Buffalo.

Eric Li, Chief IR/PR Officer -Joining Himax in 2012, Mr. Eric Li has an extensive experience in image processing related IC design, having worked in the areas of sales, marketing, R&D and served as Associate Vice President at Himax covering the Intelligent Sensing AI product line. Mr. Li has previously worked in video processing ASIC service and TV/monitor ASSP products before he was put in charge of the fab construction and operation of Himax's WLO advanced optics operation. Prior to Himax, Mr. Eric Li served in executive positions of Cadence Design Systems, Socle Technology, Macronix International and Powerchip Semiconductor. He holds a B.S. degree in Nuclear Engineering from National Tsing Hua University and an M.S. degree in Computer Science from New Jersey Institute of Technology.

Contact Us

Company

Eric Li, Chief IR/PR Officer
Tel: +886-6-505-0880
hx_ir@himax.com.tw

Karen Tiao, IR Relations
Tel: +886-2-2370-3999
hx_ir@himax.com.tw

Corporate Counsel

Baker & McKenzie

SEC Legal Counsel

Davis Polk & Wardwell

Auditor

KPMG