

**SECTOR: TECHNOLOGY**  
**INDUSTRY: SEMICONDUCTORS**

**Himax Technologies, Inc.**

No.26, Zilian Road, Xinshi District  
 Tainan City 74148, Taiwan  
 Tel: +(886) 6 505-0880  
[www.himax.com.tw](http://www.himax.com.tw)

**COMPANY CONTACTS**

**Jackie Chang**

**Chief Financial Officer**

TW: +(886) 2 2370-3999 #22300

USA: +1 (949) 585-9835 #252

email: jackie\_chang@himax.com.tw

**Sky Wang**

**IR Project Manager**

US: +1 (630) 632-9753

email: sky\_wang@himax.com.tw

**U.S. INVESTOR RELATIONS**

**Maili Bergman**

**Managing Director, MZ Group**

Main: +1 (949) 298-4320

email: HIMX@mzgroup.us

[www.mzgroup.us](http://www.mzgroup.us)

**Himax Technologies, Inc. (NASDAQ: HIMX)** is a fabless semiconductor solution provider dedicated to display imaging processing technologies. Himax is a worldwide market leader in display driver ICs and timing controllers used in TVs, laptops, monitors, mobile phones, tablets, digital cameras, car navigation, virtual reality (VR) devices and many other consumer electronics devices. Additionally, Himax designs and provides controllers for touch sensor displays, in-cell Touch and Display Driver Integration (TDDI) single-chip solutions, LED driver ICs, power management ICs, scaler products for monitors and projectors, tailor-made video processing IC solutions, silicon IPs and LCOS micro-displays for augmented reality (AR) devices and heads-up displays (HUD) for automotive. The Company also offers digital camera solutions, including CMOS image sensors and wafer level optics for AR devices, 3D sensing and machine vision, which are used in a wide variety of applications such as mobile phone, tablet, laptop, TV, PC camera, automobile, security, medical devices, home appliances and Internet of Things. Founded in 2001 and headquartered in Tainan, Taiwan, Himax currently employs around 2,000 people from three Taiwan-based offices in Tainan, Hsinchu and Taipei and country offices in China, Korea, Japan, Israel and the US. Himax has 2,922 patents granted and 575 patents pending approval worldwide as of December 31, 2019. Himax has retained its position as the leading display imaging processing semiconductor solution provider to consumer electronics brands worldwide.

**Investment Highlights**

- **Leading Imaging and Human Interfacing Technology Innovator**
- **Innovative New Products Capturing Growth Markets**
- **Diversified Base of Customers and Revenues**
- **Visionary Management Team**

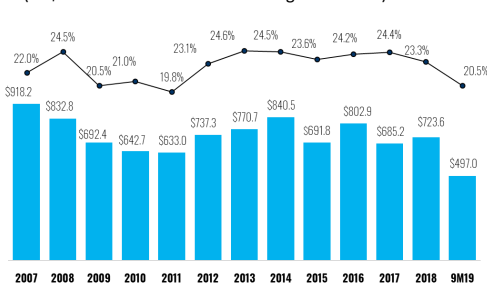
**Summary Financials**

	4Q2019	3Q2019	4Q2018	YoY	QoQ
Revenues	\$174.9M	\$164.3M	\$191.0M	-8.4%	+6.5%
Gross Margin (%)	20.6%	19.5%	24.3%	-3.7%	+1.1%
IFRS Profit (Loss)	\$1.0M	(\$7.2M)	\$8.5M	-87.8%	+114.4%
IFRS Earnings (Loss) per ADS	\$0.006	(\$0.042)	\$0.049	-87.8%	+114.4%
Non-IFRS Profit (Loss)	\$1.5M	(\$6.9M)	\$8.7M	-82.6%	+121.9%
Non-IFRS Earnings (Loss) per ADS	\$0.009	(\$0.040)	\$0.050	-82.6%	+121.9%

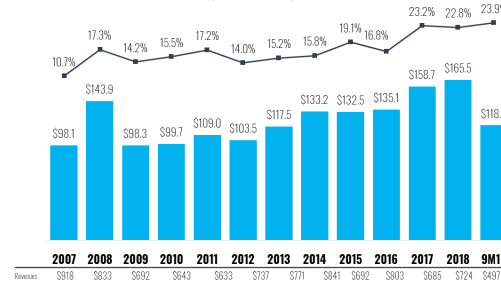
**1Q2020 Guidance**

Revenues	To increase between 1.0% to 10.0% sequentially, an increase of 8.2% to 17.8% year-over-year
Gross Margin (%)	To increase by 1.0% to 2.0% sequentially
IFRS Profit (Loss)	(0.5) cents to 1.8 cents per fully diluted ADS
Non-IFRS Profit (Loss)	(0.2) cents to 2.1 cents per fully diluted ADS

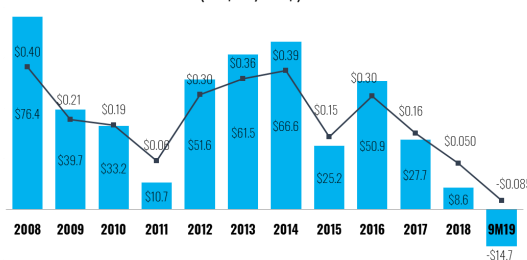
**Revenues and Gross Margin %**  
 (US\$M in Revenues and Gross Margin % of Sale)



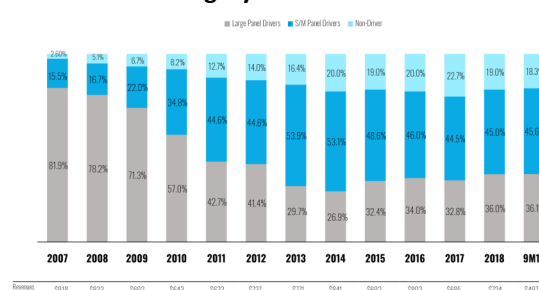
**OPEX and % of Total Sales**  
 (US\$M / %)



**Profit and EPS**  
 (US\$M / US\$)



**Category Product Mix**



**SELECT FINANCIALS**

<b>Fiscal Year</b>	Dec. 31st
<b>Last-Traded Price</b> (02/12/20)	\$4.69
<b>Market Cap.</b> (02/12/20)	\$807.4M
<b>50-Day Avg. Daily Vol.</b>	~1.34 M
<b>Basic Weighted Avg. Out. ADS</b>	172.6 M
<b>Cash</b> (12/31/19)	\$101.1 M
<b>2018 Revenues</b>	\$723.6 M
<b>2018 IFRS Profit*</b>	\$8.6 M
<b>2018 IFRS EPS*</b>	\$0.05 per ADS
<b>Legal</b>	Davis Polk & Wardewill
<b>Auditor</b>	KPMG
<b># Analyst Coverage</b>	6

\*2018 Q4 included a revaluation gain on investment of 1.7 cents and FY2018 1.2 cents

## Core Product Lines - Growth Opportunities



### 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

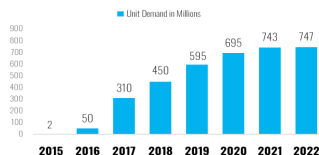
#### Strategies and Market Position

##### TDDI PURE IN-CELL SOLUTION

- Numerous new design-wins and shipment with top-tier smartphone and tablet makers and most panel makers in China starting Q419. Expect strong growth in 2020 and beyond
- In-cell TDDI becoming mainstream for tablet, Himax is the primary and sole source for non-iOS tablets. MP started for major tier-1 OEMs in 4Q19, with growth continuing into 2020 and beyond
- New generation FHD+ TDDI with COF package to enable super-slim bezel design for premium smartphone and tablet models
- The new TDDI design-wins for smartphone and tablet applications with mass shipment started late 2019, expect robust growth by increasing market share from 5% to 20% in 2020
- Himax is the dominant automotive TDDI technology provider with mass production experience for leading panel makers. Although only small volume shipments in 2020, we anticipate meaningful shipment volume to ramp up moving into 2021
- Higher ASP and better margin than traditional driver IC
- TDDI will be the biggest growth driver for Himax in 2020



TDDI Demand Forecast 2015-2022  
In Millions of Units



### Display Driver IC (DDIC)

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

#### 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 and collaboration with major panel makers on the development of next generation 8K TVs
- Next generation display for smartphone and automotive, Himax is the leader in key technologies such as TDDI, AMOLED and local dimming timing controller
- Expect shipment of AMOLED DDIC for TV, smartphone and wearables to start in 2020, though modest volume. Expect acceleration beyond 2020
- 8K TV is a strategic area for Himax due to its higher display driver and Tcon content and high technical barrier of entry
- Starting to see robust strength in customer demand in large and auto DDIC, ramping of new foundry. Expect strong growth in 2020 and beyond



### Management Team

**Dr. Bing-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. Wu, co-founder of Himax, previously served as the Chairman of the Board of Himax Taiwan since April 2003. 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. 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.

**Jackie Chang, Chief Financial Officer** - Before joining Himax, Ms. Chang was the CFO of Castlink Corporation and VP of Finance and Operations for PlayHut, Inc. Prior to that, Ms. Chang was General Manager - Treasury Control for Nissan North America. She held several positions in Nissan North America during 1994 -2006 including finance, treasury planning, operations and accounting. She holds a BBA in Accounting from the National Chung-Hsing University in Taiwan and an MBA in Finance from Memphis State University.

### WLO and 3D Sensing

We offer WLO design know-how and mass production expertise for 3D sensing solutions including; structured light, active stereo camera (ASC) and time of flight (ToF).

#### 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 2017 with ongoing shipment in 2020. Expect multiple design wins of new content with higher ASP in 2H20
- Himax continue to participate in most ongoing 3D sensing projects covering structured light for non-smartphone application and time-of-flight (ToF) for smartphone 3D, focusing on transmitter module by leveraging our WLO related expertise
- WLO 3D sensing projector in ToF WF module for Android smartphone will be the largest new growth opportunity for Himax moving forward. Target reference design ready 1Q20. Potential shipment opportunity with multiple Tier-1 OEMs in 2020, higher ASP than WLO
- 3D Sensing for non-smartphone, working with industry-leading facial recognition algorithm and application processor partners to develop new 3D sensing application for smart door lock with design-in projects already underway with certain end customers
- WLO and 3D Sensing will be the largest growth opportunity for Himax beyond 2020

### CIS and Ultra Low-Power Smart Sensing

CMOS image sensors include near infrared (NIR) sensors for 3D sensing, ultra-low power Always-on-Sensor (AoS™), and customized sensors for optical finger print solutions

#### Strategies and Market Position

- Himax Ultra low-power CMOS Image Sensor:
  - Industry first ultra low-power and low latency Back-Illuminated CMOS Image Sensor solution with autonomous modes of operation for always on, intelligent visual sensing applications
  - The VGA resolution can double the range of detection over QVGA resolution, especially to support 90 degree wide field of view lens
  - First mover advantage and have garnered attention and support from leading AI framework provider, ecosystem providers, and others in the industry. Represent significant growth opportunity
- Our WiseEye solution contains Himax's industry leading CMOS image sensor and ASIC designs with Emza's AI-based algorithm. All with low power features. WiseEye will enable next generation AI-based computer vision technology with ultra-low power for notebook and many other markets. Expect shipment to Tier-1 NB OEM in 2020. High ASP
- CIS include near infrared (NIR) sensors for 3D sensing and ultra-low power computer vision Always-on-Sensor (AoSTM) for 'smart building' and security applications, next generation notebook, and AR/VR for mobile devices

### LCoS Microdisplays



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

#### 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
- List of AR goggle device customers covers many of the world's biggest tech names. Many have 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 MP 2022
- LCoS is one of the mainstream technology for AR goggle devices
- LCoS represents a long-term growth opportunity for Himax