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Company Overview

2020 Segment Revenue Contribution

We are a leading global supplier of hardware and software solutions for the manufacture of semiconductors and electronics



¹As of 19 February 2021 ² VLSI, SMT and SEMI, Management Estimates

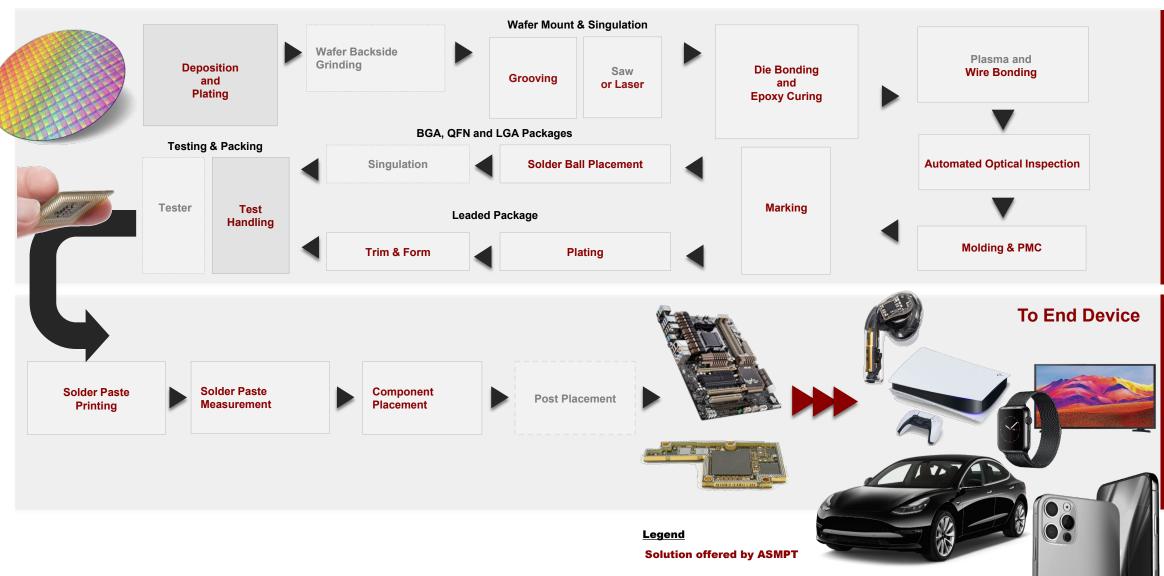
³ Materials Segment will be de-consolidated and equity 4 accounted for from 29 December 2020



Our Core Capabilities

Comprehensive Suite of Packaging & Assembly and SMT Solutions for Multiple End Applications (A General Process Flow for IC and Discrete)

From Wafer...





2020 Group Highlights

	FY20		Q4 20		
		YoY*		QoQ	YoY*
Bookings (USD)	2,382m	+16.7%	658m	+12.9%	+46.3%
Revenue (USD)	2,177m	+6.3%	634m	+15.2%	+10.5%
Gross Margin ¹	33.6%	-114 bps	33.0%	+6 bps	-179 bps
Net Profit Margin ¹	5.9%	+202 bps	7.7%	+220 bps	+269 bps

Key Highlights for FY2020:

- Record 4th Quarter bookings, reversing seasonally low Q4 trend
- Automotive & Industrial bookings bottomed out end-1H20
- Broadened customer demand for AP tools
- Group's AP (both SEMI & SMT) FY20 Revenue contribution ▲ >50% YoY

Main Drivers for FY2020:

- Accelerated digital transformation trends drove:
 - Equipment capacity expansion
 - Advanced Packaging (AP) solutions
- 5G roll-out
- General automotive recovery and automotive electrification

¹ Excluding one-off items and related tax impact

2020 Group Highlights – Continued

Group	FY20		Q4 20		
(excluding one-off items and related tax impact)		YoY		QoQ	YoY
Gross Margin	33.6%	-114 bps	33.0%	+6 bps	-179 bps
Net Profit (HKD)	1,002m	+61.1%	378m	+61.5%	+70.2%
Net Profit Margin	5.9%	+202 bps	7.7%	+220 bps	+269 bps

One-	off	Itams	for	EV2	0	20.
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- Gain of HK\$859m from planned 55.56% divestment of Materials Segment
- Strategic initiative-related provisions of HK\$255m

Group		Y20		Q4 20		
(including one-off items and related tax impact)		YoY		QoQ	YoY	
Gross Margin	32.5%	-232 bps	28.9%	-399 bps	-584 bps	
Net Profit (HKD)	1,631m	+162.0%	1,006m	+330.0%	+353.4%	
Net Profit Margin	9.7%	+574 bps	20.5%	+1,497 bps	+1,547 bps	

2020 Semiconductor Solutions Segment Highlights

	FY20		Q4 20			
		YoY*		QoQ	YoY*	
Bookings (USD)	1,158m	+25.9%	334m	+16.0%	+84.9%	
Revenue (USD)	1,027m	+13.8%	307m	+24.1%	+17.3%	
Gross Margin ¹	40.7%	-43 bps	39.0%	-95 bps	-180 bps	

Key Highlights for Q4 2020:

- Record 4th Quarter Bookings and Revenue
- IC/Discrete
 - Personal computing devices, HPC, Automotive & Power management
 - China: 5G infrastructure, Capacity ramp-up
- Optoelectronics
 - General lighting / conventional display applications
 - Extensive customer engagements on mini and micro LED
- CIS Q4 Revenue ▼ YoY, ▲ QoQ
- Mainstream Die / Wire Bonders: Very strong Q4 Revenue YoY Growth
- FY20 GM ▼ slightly due to product mix

¹ Excluding one-off items

2020 SMT Solutions Highlights

	FY20		Q4 20			
		YoY*		QoQ	YoY*	
Bookings (USD)	874m	-0.7%	208m	-9.1%	+4.7%	
Revenue (USD)	868m	-4.2%	249m	+10.4%	+1.4%	
Gross Margin	31.1%	-384 bps	31.1%	+119 bps	-441 bps	

Key Highlights for Q4 2020:

- Q4 20 Bookings ▼ QoQ, ▲ YoY
 - Despite decline, QoQ Bookings for automotive customers
- Q4 20 Revenue A QoQ and YoY
 - Strong end-market demand for automotive, 5G infrastructure and industrial applications
 - Continued strong demand for high-accuracy SMT systems (AP tools) for SiP applications
 - Strong pickup in equipment services and spare parts business
- Q4 20 GM ▼ YoY, ▲ QoQ
 - Long-term GM improvement with implementation of strategic initiatives

2020 Materials Segment Highlights

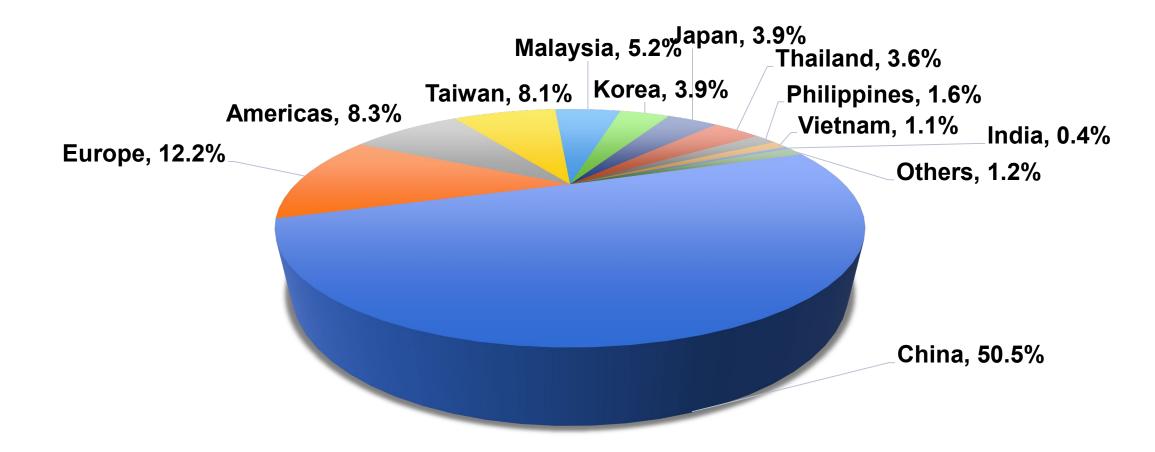
(Deconsolidated from FY2021 onwards)

	FY20		Q4 20		
		YoY*		QoQ	YoY*
Bookings (USD)	350m	+45.4%	116m	+75.3%	+64.7%
Revenue (USD)	282m	+18.0%	78m	+1.0%	+17.8%
Gross Margin	15.7%	+558 bps	15.5%	-388 bps	+707 bps

Key Highlights for Q4 2020:

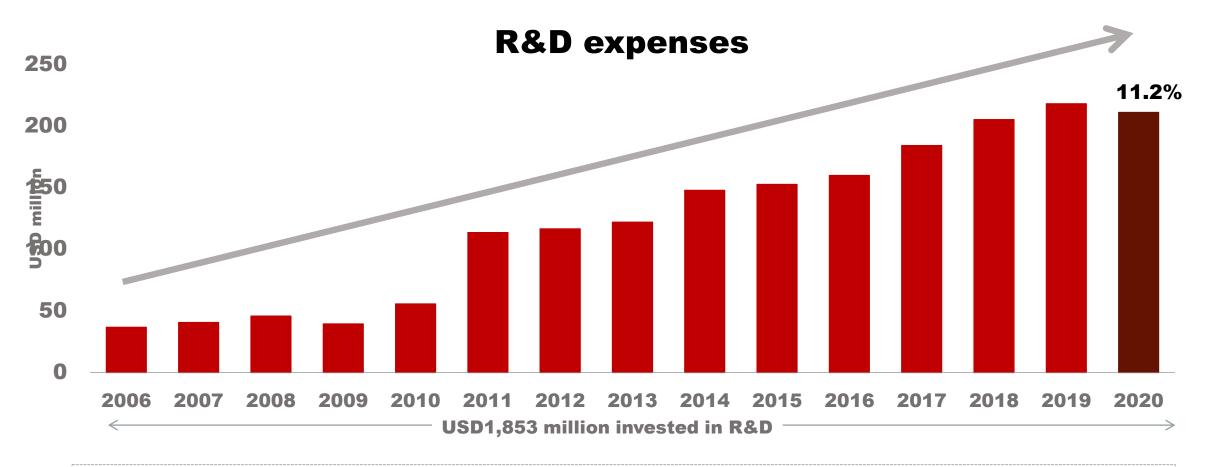
- All-time high quarterly Bookings and Revenue
- Bullish order momentum indicative of robust semiconductor demand
- Q4 20 GM ▲ YoY due to higher volume effect, ▼ QoQ due to operations relocation impacting utilization
- From 29 December 2020, Materials Segment's business will be equity accounted for in the Group's books
- Materials business continues to be of significant strategic importance to Group

2020 Revenue Breakdown by Geography



Top 5 customers accounted for only 13.7% of Group FY2020 revenue

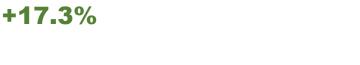
R&D Commitment Makes Us a Preferred Partner of Choice

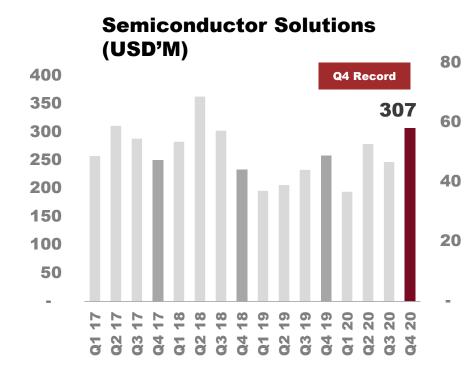


A total of US\$211 million invested in R&D expenditure in 2020, equivalent to 11.2% of Equipment Sales.

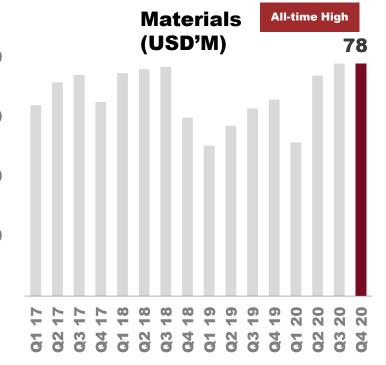
Business Segments Revenue Trend





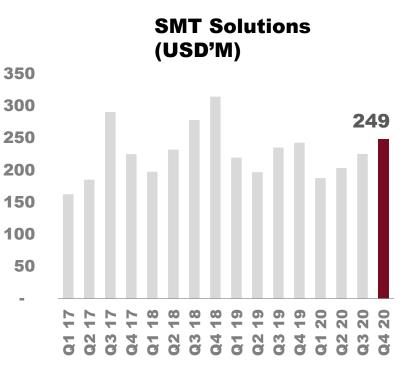


YoY* Growth: +17.8%



YoY* Growth:

+1.4%

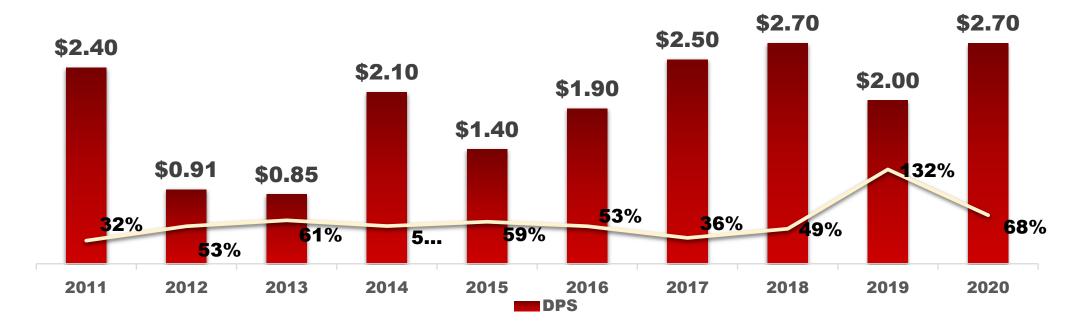


Business Segments Bookings Trend



2020 Dividends and Dividend Policy

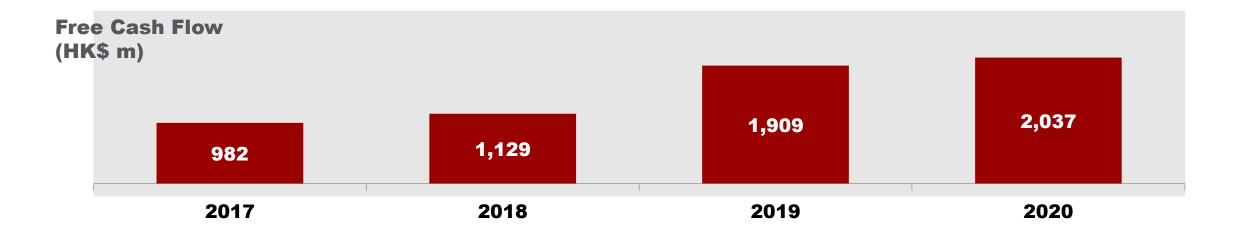
Dividends Per Share (HKD) & Dividend Payout Ratio

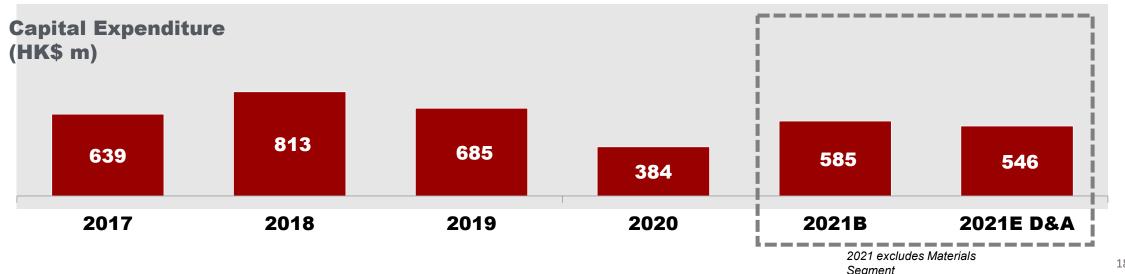


- Consistent dividend payout every year since HKEX listing in 1989
- Above-average dividend payout ratio of 68% in FY 2020 to reward shareholders from the net gain attributable to the one-off items
- Dividend policy of consistent annual dividend payout ratio of around 50% (consistent with average dividend payout ratio 2011-2020)

Free Cash Flow and Capital Expenditure

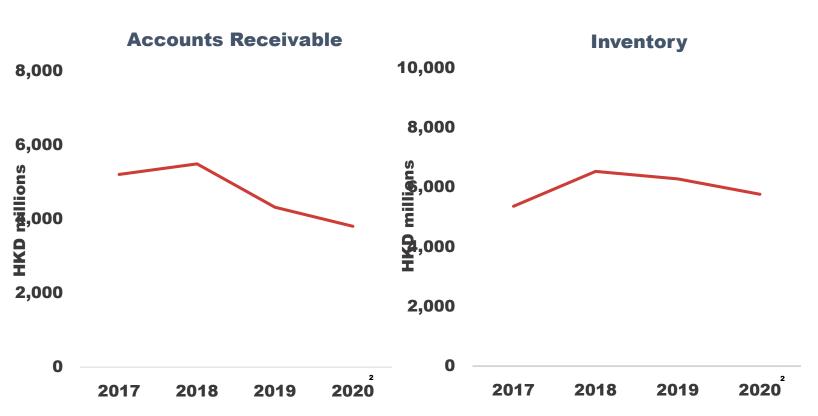
Healthy Free Cash Flows to Support Operational and Investment Plans

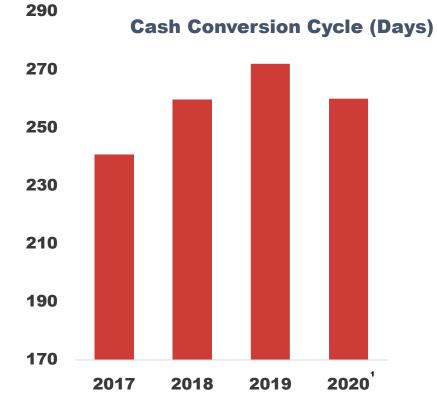




Working Capital Management

Improving Liquidity and Capital Efficiency





¹ Cash Conversion Cycle computation excludes Materials Segment contribution

² A/R and Inventory balances have excluded Materials Segments' contribution



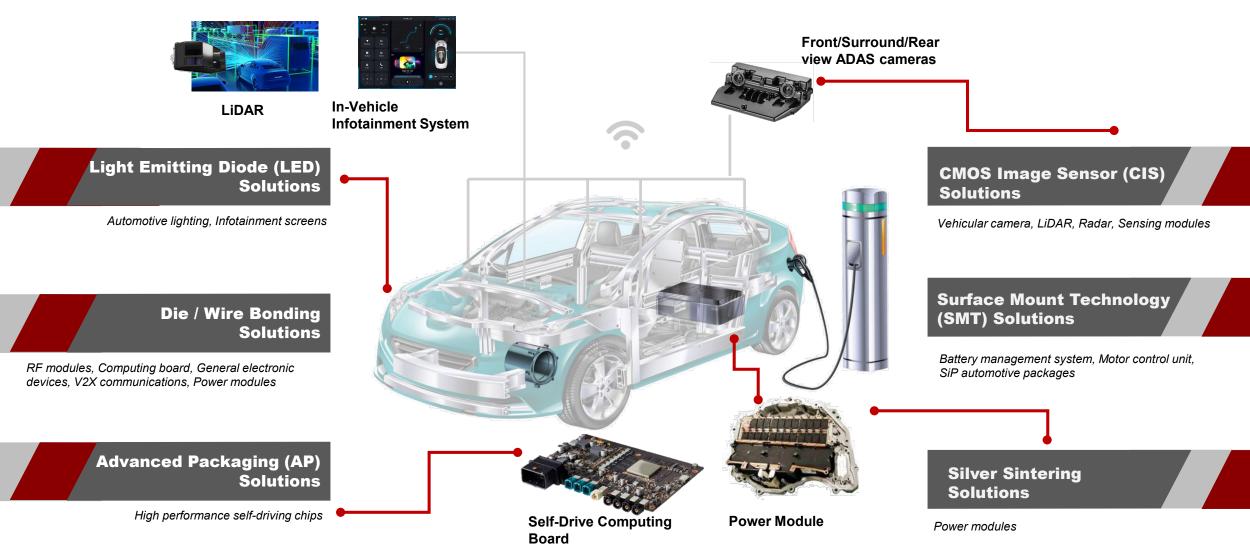
ASMPT's Pervasive Presence in Multiple End-Market Applications

Highlighted in This Presentation: Automotive



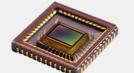
Comprehensive Capabilities

Pervasive use of ASMPT Technology (Automotive Electrification as Example)



Comprehensive Automotive CIS Solutions

Automotive Electrification Demands More Imaging Sensors

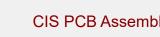


A typical CIS Package 1st Level Packaging

CIS Packaging addressed by **SEMI Solutions Segment**

Example of typical CIS Packaging Process highlighted in Appendix

2nd Level Packaging

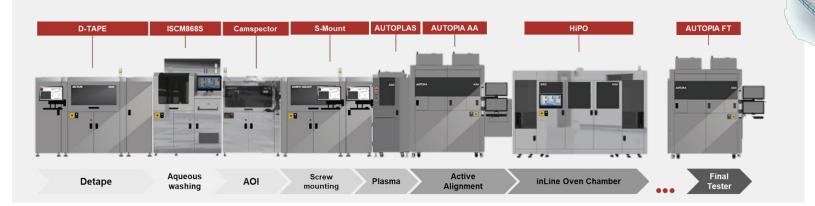


CIS PCB Assembly addressed by **SMT Solutions Segment**

Example of typical 2nd Level Packaging Process highlighted in Appendix

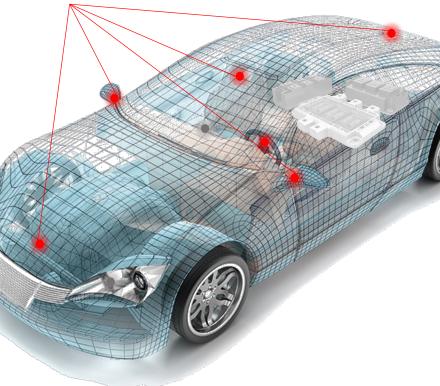
A typical CIS PCB

Camera Module Assembly Stage



Front / Surround / Rear View Camera

CIS packages, LiDAR modules





All round safety: Cameras and Sensors are deployed 360°, functioning as 'eyes' to vehicles and a key enabler towards L5 autonomous driving

Comprehensive Total Automotive Power Management Solutions

Automotive Electrification Drives Greater Power Requirements

Display

Centre

MEMS & Sensors

Accelerometers

Comfort Control

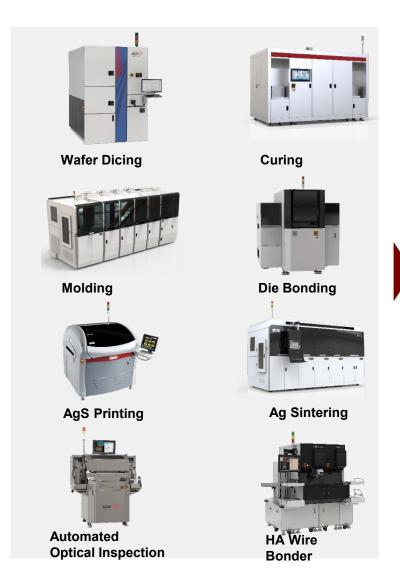
System

Pedestrian

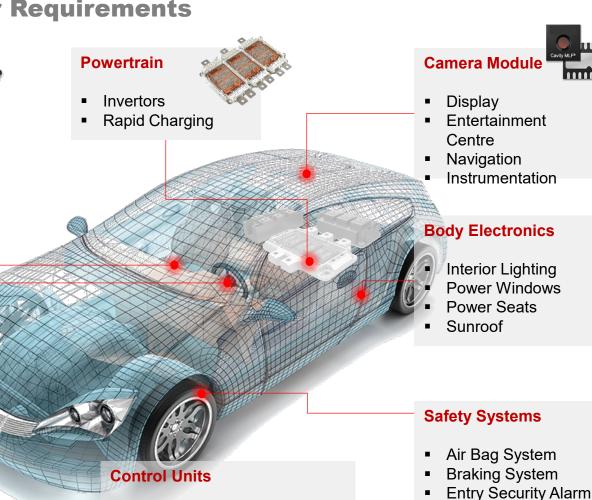
Detection

Light Dimmer

Pressure Sensor







- **Battery Management System**
- **Motor Control Unit**
- Microcontroller



Collision Warning

Driver Drowsiness Monitor

Comprehensive Advanced Packaging Solutions for Automotive

Driven by Economic Advantages Compared with Pure Silicon Scaling

Advanced Packaging Technology Enabler



FIREBIRD TCB FLL



NEXX PVD I ECD Bumping, TSV & RDL



ORCAS Encapsulation Wafer and Panel



Silicon

Interposer

ligh Bandwidth Memory

Wafer Level Mold Underfill (Protects Integrated Wafer)

A typical Heterogeneous Integration Packaged Chip



Laser1205 Laser Separation Wafer Dicing and Grooving



SIPLACE CA DIE ATTACH & SMT Wafer and SMT Feeders

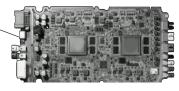


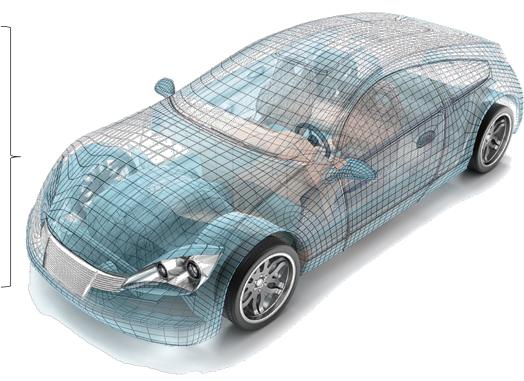
NUCLEUS Pick and Place Wafer and Panel

A Computing Board with 4 High Performance AI Processors



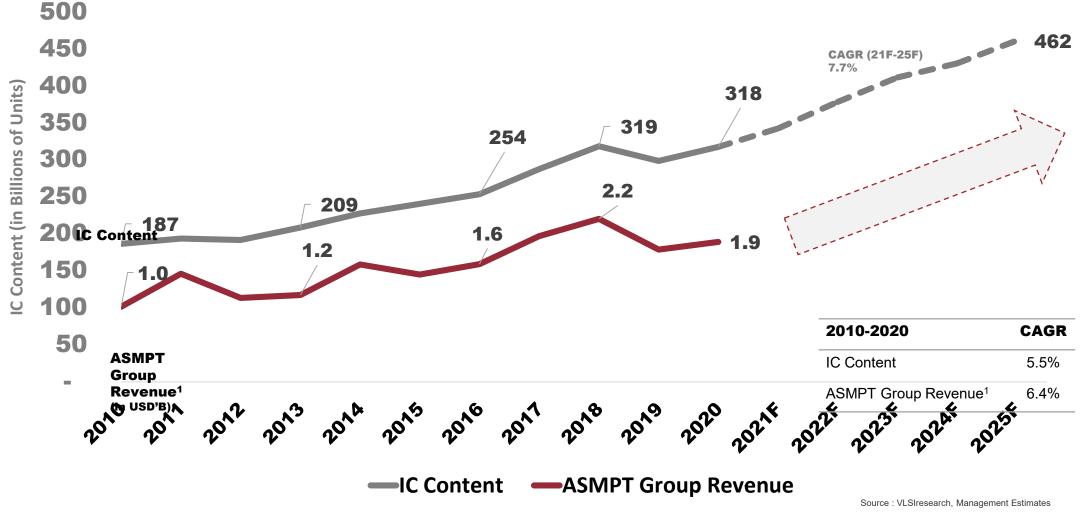
A Computing Board with 2 High Performance Self-Driving AI Chips





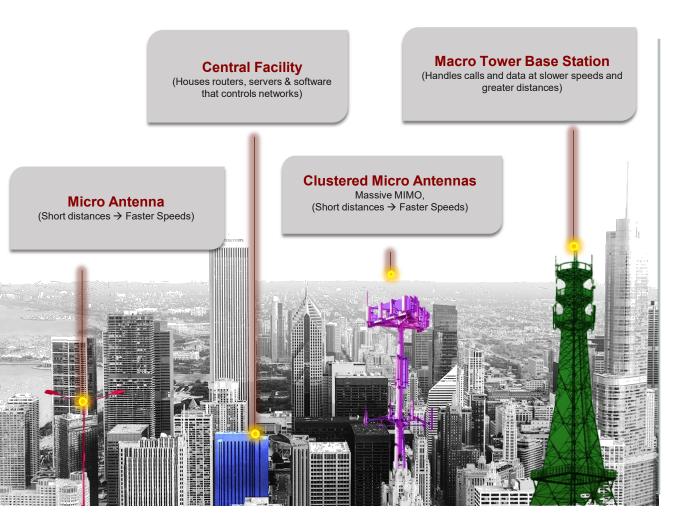


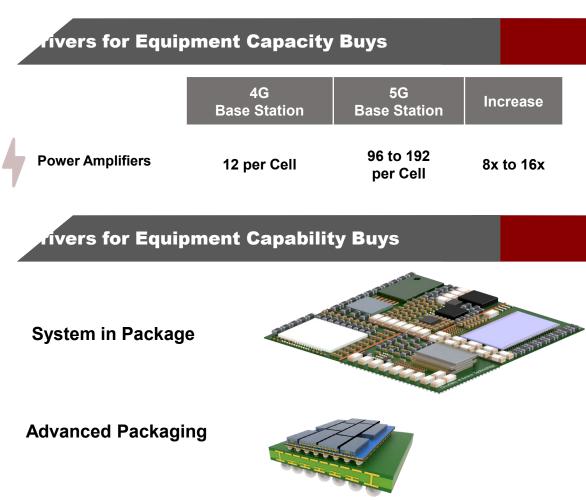
Growing in Tandem with IC Content Produced Over the Years Broader Semiconductor Growth from Megatrends Bode Well for ASMPT's Growth



Market Growth Driver – 5G Infrastructure

Multi-Country, Multi-Year Driver from 5G Rollout





Market Growth Driver – 5G Smartphones

Greater Demand for Higher Performance End Devices









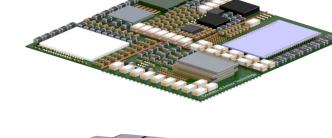
Drivers for Equipment Capacity Buys

	4G	5G	Increase
Filters:	40	70	1.75x
Bands:	15	30	2.0x
Tx/Rx Filters:	30	75	2.5x
Switch Throws:	10	30	3.0x
CA Combos:	10	200	20.0x
Sensors:	6	7	1.17x
Camera Module:	5	7	1.4x
Microphone:	2	3	1.5x

Drivers for Equipment Capability Buys

System in Package

Advanced Packaging

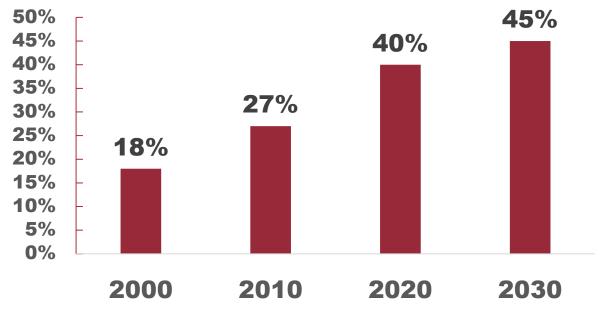




Market Growth Driver – Automotive Electrification

Increasing Automotive Electronics Content Expands ASMPT's Market

Automotive Electronics Content 45%



■ Automotive Electronics Content (% of Total Car Cost)

Source: Deloitte

rivers for Equipment Capacity Buys

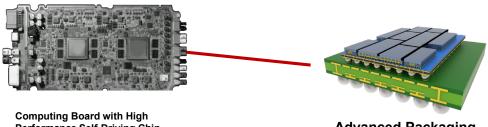
	Present	Future	
	Level 2 Autonomy	Level 5 Autonomy	Increase
ADAS camera	X 1	X 9	9x
LiDAR	-	X 5	5x
Other Sensing Modules	X 17	X 22	1.3x

rivers for Equipment Capability Buys

Present	Future	
Level 2 Autonomy	Level 5 Autonomy	Increase
0.25 TOPS	1,000 TOPS	4,000x

Computing Power

TOPS: Tera Operations per Second. A measure of maximum achievable throughput



Performance Self-Driving Chip

Advanced Packaging

ASMPT Growth Enablers

Well Positioned to Capture Growth



Automotive and Power Solutions

Comprehensive suite of Automotive Electrification Solutions



Advanced Packaging Solutions (AP)

Comprehensive suite of AP Solutions



Deep engagement with key mini and micro LED customers



Silicon Photonics Solutions

Sub-micron placement accuracy bonding capabilities



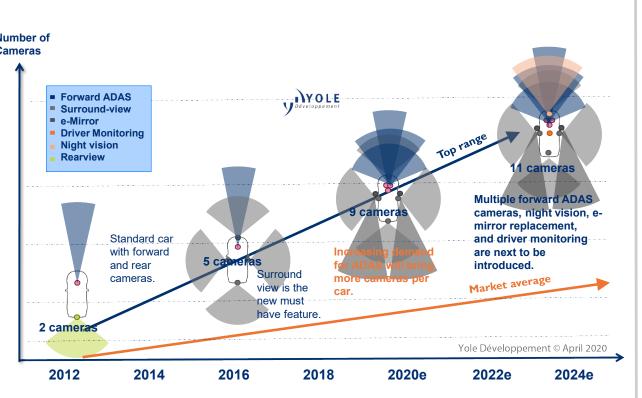
Automatic in-line solutions capabilities



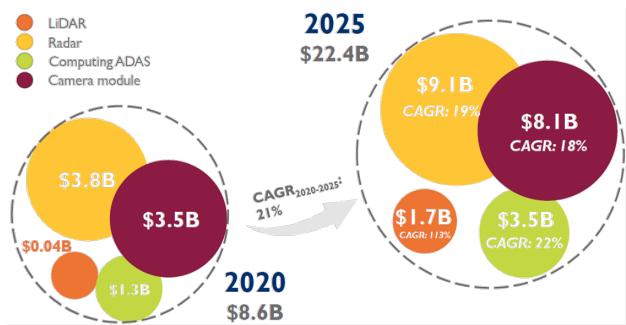
Market Enabler - Automotive Electrification

Growing Sensor and Computing Market Revenue

Camera Proliferation in Automotive Development



Increasing Adoption of Sensor and Computing Technologies to Improve Vehicle Safety and Intelligence



Source: Yole Developpement 2020

ASMPT Automotive CIS Solutions

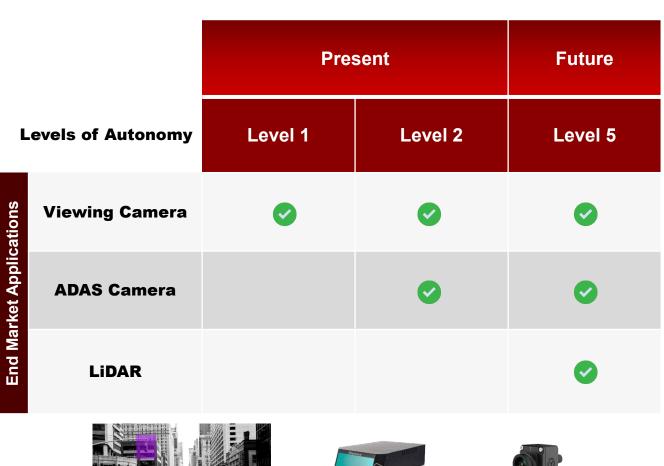
Comprehensive Solutions for Automotive Market







(Automotive Camera Assembly Solution)



LiDAR

Viewing and ADAS

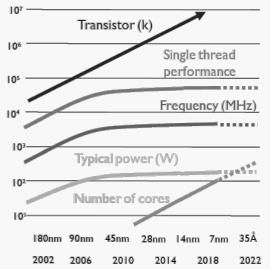
Camera

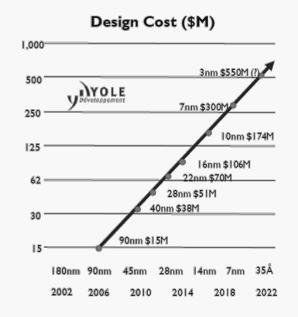
Market Enabler – Advanced Packaging

Fuelled by Need to Enhance System Performance, Reduce Design Costs and Shorten Time to Market

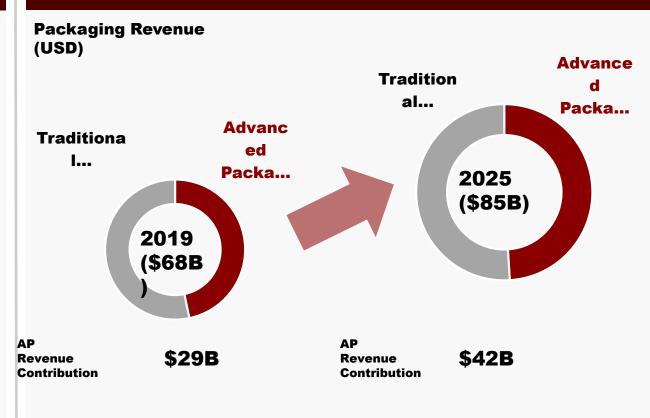
Design costs continue to increase with greater demand for improved device functionality and performance





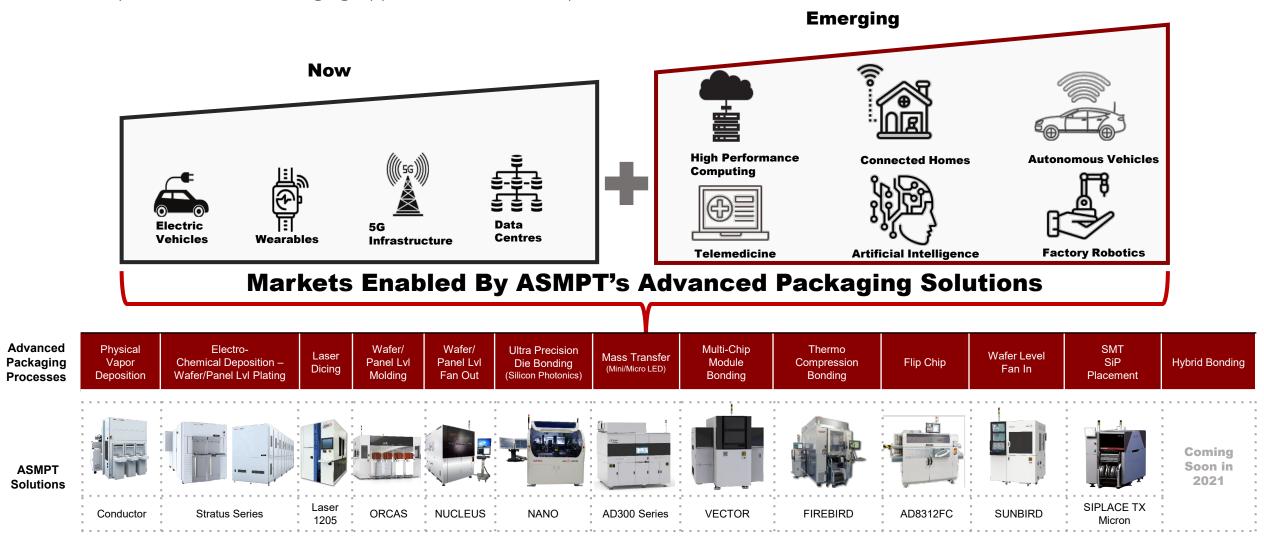


Increasing AP trend: Adoption of AP technologies in design and manufacturing will reduce cost and time to market



ASMPT Advanced Packaging Solutions

Poised to Capture Advanced Packaging Opportunities with Comprehensive Suite of Solutions



Market Enabler - Mini and Micro LED

Mini LED

Medium to Large RGB / BLU Display

Market Size CAGR (2020 - 2025)

470/0









Market Size CAGR (2020 - 2026)

~ 116%

Micro LED

Small Gadget &

Transparent Display

Source: Marketwatch, Dec 2020

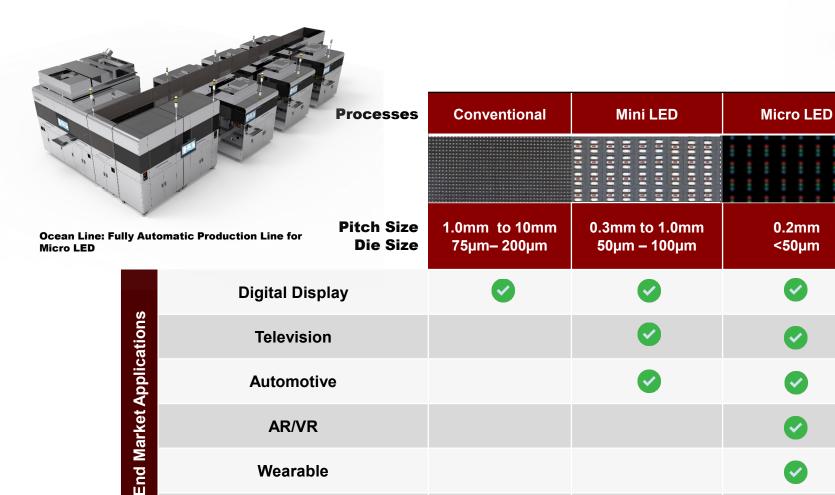








ASMPT Mini & Micro LED Solutions

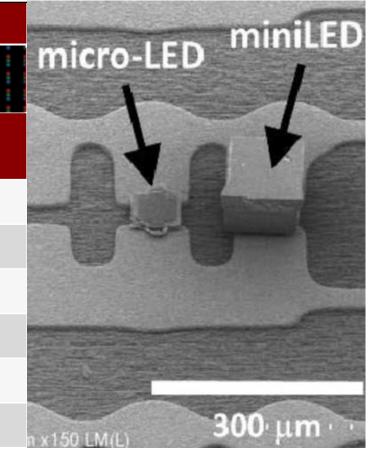


Wearable

Mobile

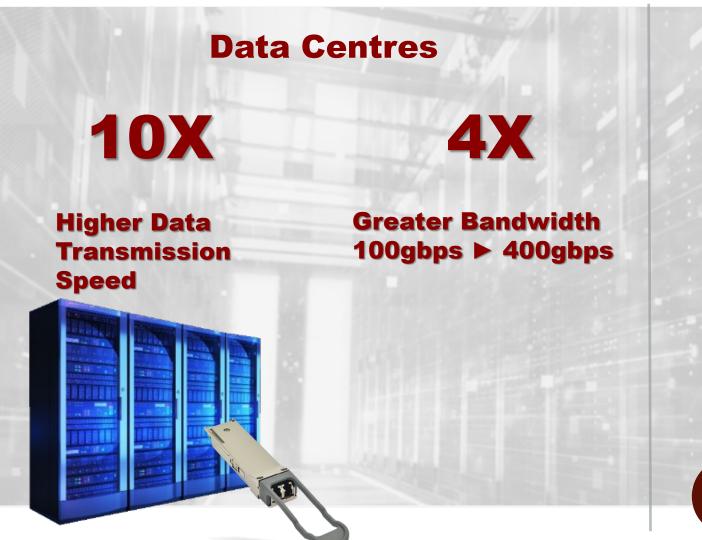


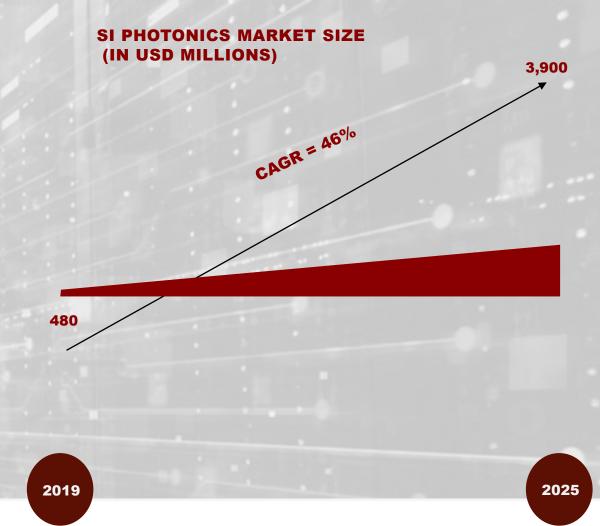
Inline Linker: Fully Automatic Production line for



Market Enabler - Silicon Photonics

Enabling Faster Data Bandwidth and Speed Transmission





ASMPT Silicon Photonics Solutions

	Processes	Photonics	Silicon Photonics	
	Placement Accuracy Die Size	2 – 10μm 150μm – 2000μm	0.3 – 2.0 μm 150μm – 3000μm	
itions	Data Centre-Cloud			
End Market Applications	Telecom - 5G			
Market	3D Sensing			
End R	LiDAR			ASM & AMICRA



Outlook

Q1 2021 Group Revenue Guidance

- Q1 2021 Group Revenue range US\$500m US\$550m, a Q1 quarterly record (excluding revenue from Materials Segment)
- SEMI Segment is expected to deliver strong QoQ revenue growth, offset by a QoQ seasonal decrease in SMT Segment revenue
- The Group has aggressively ramped up its capacity to meet delivery commitments to customers over the coming quarters.

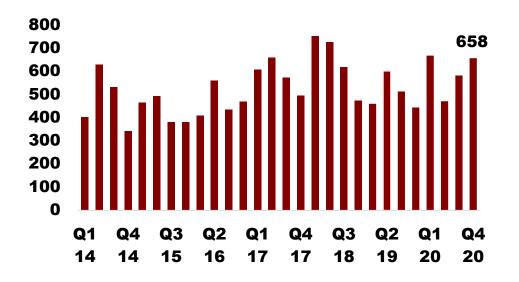
Q1 2021 Group Bookings Guidance

- Q1 2021 Group Bookings are expected to surpass US\$700m (excluding Materials Segment)
- Since the beginning of 2021, the Semiconductor Solutions Segment experienced order intake momentum at an unprecedented pace



2020 Group Bookings





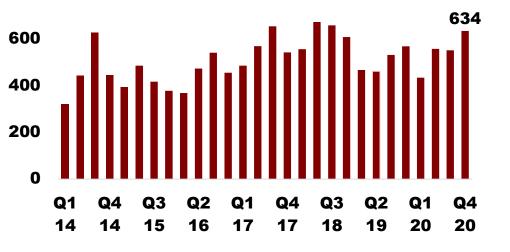
	Q4 2	Q4 2020 Bookings			2020 Bookings	
	USD	YoY*	QoQ*	USD	YoY*	
Group	658m	+46.3%	+12.9%	2,382m	+16.7%	
Semi Solutions Segment	334m	+84.9%	+16.0%	1,158m	+25.9%	
SMT Solutions Segment	208m	+4.7%	-9.1%	874m	-0.7%	
Materials Segment ¹	116m	+64.7%	+75.3%	350m	+45.4%	

¹ Materials Segment will be de-consolidated and equity accounted for from 29 December 2020

^{*}Period to period variances calculated using HKD

2020 Group Revenue





	Q4 2020 Revenue			2020 Revenue	
	USD	YoY*	QoQ*	USD	YoY*
Group	634m	+10.5%	+15.2%	2,177m	+6.3%
Semi Solutions Segment	307m	+17.3%	+24.1%	1,027m	+13.8%
SMT Solutions Segment	249m	+1.4%	+10.4%	868m	-4.2%
Materials Segment ¹	78m	+17.8%	+1.0%	282m	+18.0%

 $^{^{1}\}mbox{Materials}$ Segment will be de-consolidated and equity accounted for from 29 December 2020

^{*}Period to period variances calculated using HKD

2020 Group Financial Highlights

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		YoY*	QoQ*	YoY*
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Revenue (USD)	2,177m	+6.3%	+15.2%	+10.5%
Gross Margin (excluding One-off Items ¹)	33.6%	-114 bps	+6 bps	-179 bps
Gross Margin	32.5%	-232 bps	-399 bps	-584 bps
EBIT (HKD)	2,007m	+71.9%	+210.3%	+256.7%
Net Profit (HKD)	1,631m	+162.0%	+330.0%	+353.4%
Net Profit Margin	9.7%	+574 bps	+1,497 bps	+1,547 bps

¹ excludes inventory provision relating to product portfolio simplification

^{*}Period to period variances calculated using HKD

2020 Segment Results – Semiconductor Solutions

	FY2020		Q4 2020		
		YoY*	QoQ*	YoY*	
Bookings (USD)	1,158m	+25.9%	+16.0%	+84.9%	
Revenue (USD)	1,027m	+13.8%	+24.1%	+17.3%	
Gross Margin (excl. One-off Items¹)	40.7%	-43 bps	-95 bps	-180 bps	
Gross Margin	38.2%	-293 bps	-934 bps	-1019 bps	
Segment Profit (HKD)	689m	+44.5%	-49.1%	-49.2%	
Segment Profit Margin	8.6%	+184 bps	-548 bps	-498 bps	

¹ excludes inventory provision relating to product portfolio simplification

^{*}Period to period variances calculated using HKD

2020 Segment Results – SMT Solutions

	FY2020		Q4 2020		
		YoY*	QoQ*	YoY*	
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Revenue (USD)	868m	-4.2%	+10.4%	+1.4%	
Gross Margin	31.1%	-384 bps	+119 bps	-441 bps	
Segment Profit (HKD)	657m	-29.1%	+16.8%	-27.9%	
Segment Profit Margin	9.8%	-343 bps	+57 bps	-421 bps	

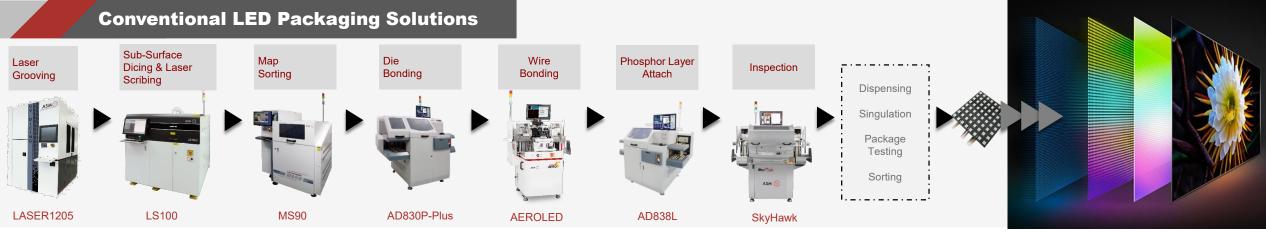
2020 Segment Results – Materials

	FY2020		Q4 2020	
		YoY*	QoQ*	YoY*
Bookings (USD)	350m	+45.4%	+75.3%	+64.7%
Revenue (USD)	282m	+18.0%	+1.0%	+17.8%
Gross Margin	15.7%	+558 bps	-388 bps	+707 bps
Segment Profit (HKD)	213m	+265.0%	-33.0%	+468.1%
Segment Profit Margin	9.7%	+659 bps	-464 bps	+726 bps



Core Capabilities

Comprehensive Suite of Packaging and Assembly Solutions (A General Process Flow for LED and CIS)





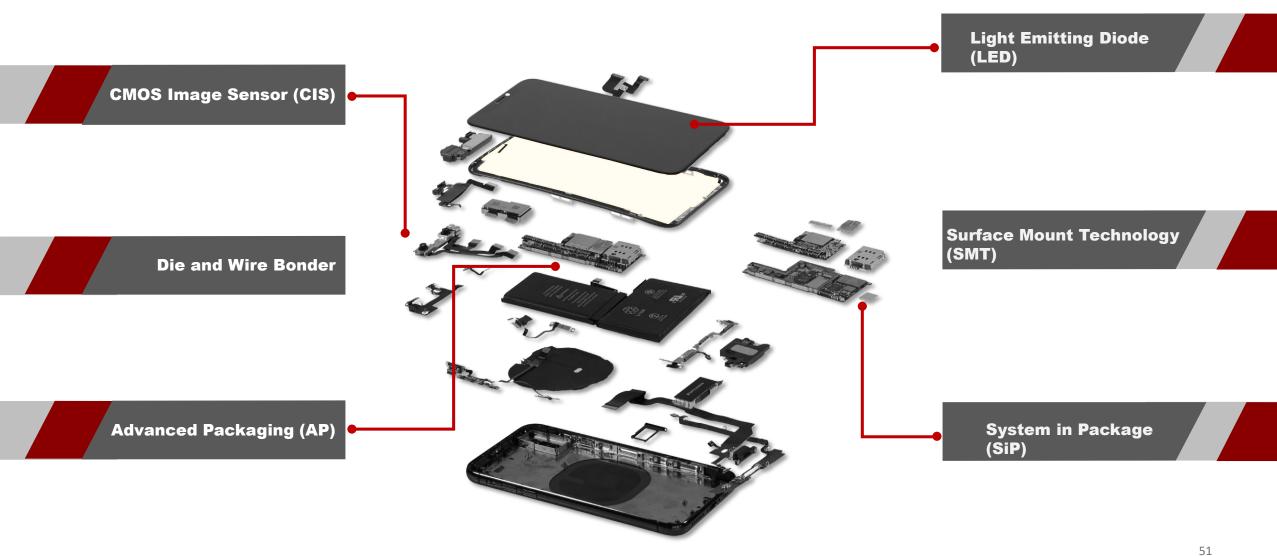


Legend

Solution offered by ASMPT

Core Capabilities

Widespread use of ASMPT Technology (Smartphone as an Example)









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