

CHROMA ATE INC.

2020.2Q Earnings Conference

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Disclaimer

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- **Corporate Profile**
- **Financial Review**
- **Operation Highlights**
- **Q&A**

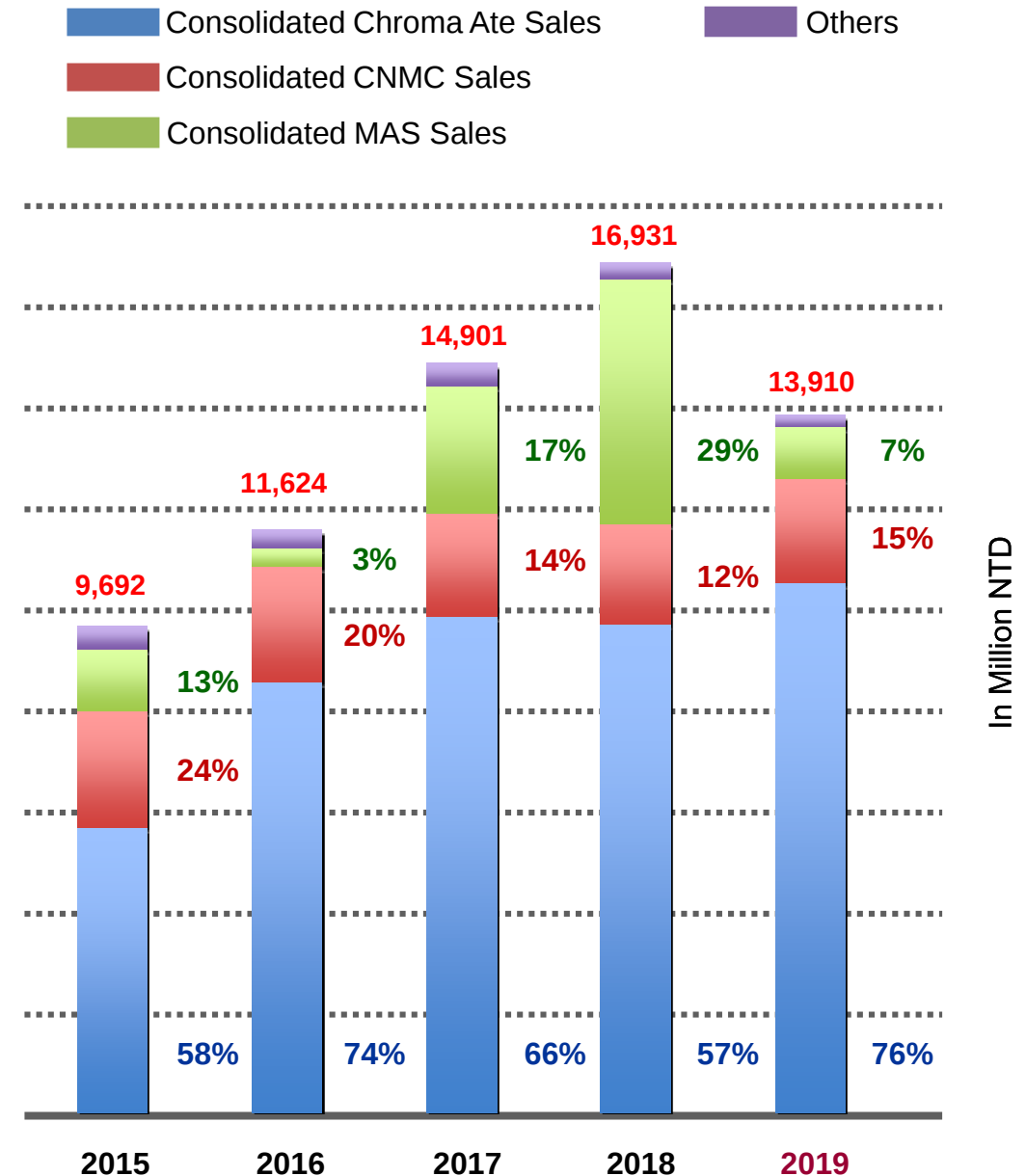
Chroma

CORPORATE PROFILE

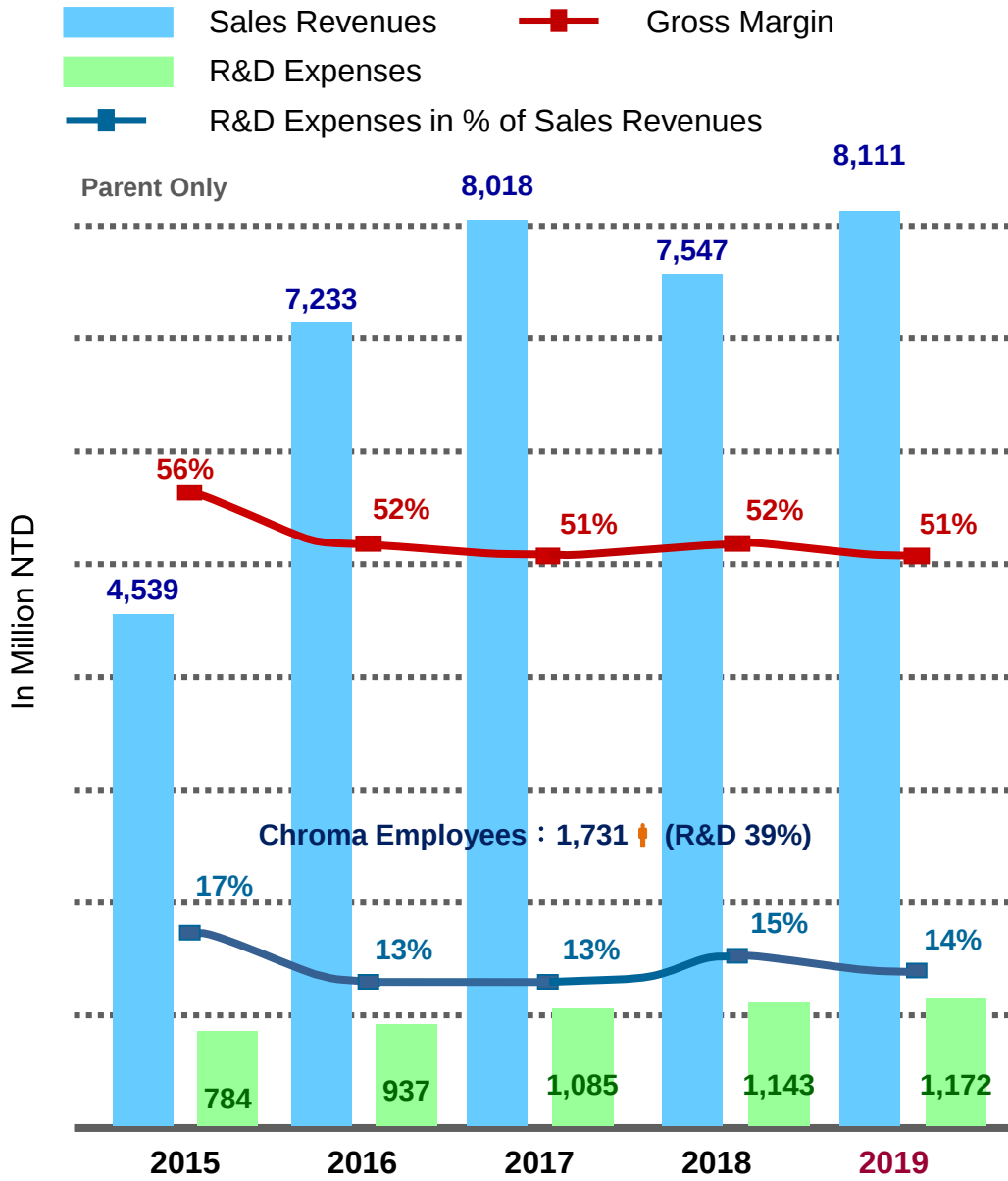
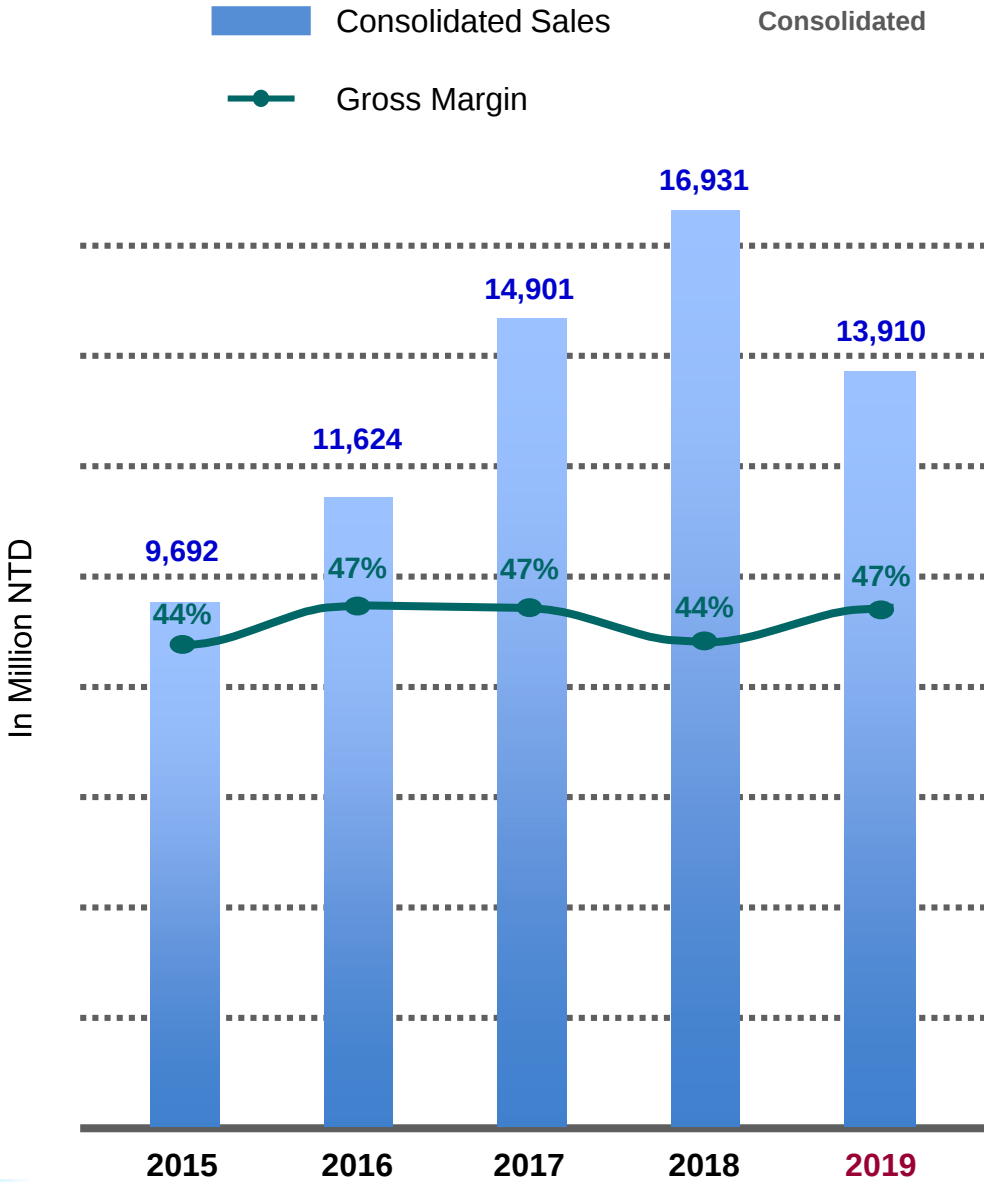
Test
and
Auto
Solution
providers
blooms

Corporate Profile

- Chroma Group founded in 1984, a world leading own brand turnkey test & automation solution provider, specialized in electronics test and measurement instruments and ATS (auto test system). Businesses cover test and measurement instruments and ATS for various industries, and a turnkey solution as an integration of Test and Measurement , Automation and MES (manufacturing execution system).
- Key success: Precision, Reliability, Innovation
- Chroma group encompass business unit of Chroma Ate Inc., Modular Assembly System (MAS) and Chroma New Material Corp (CNMC).
- 2019 Consolidated Sales : NT\$ 13.9 billion
- 2019 Net Income: NT\$ 1.9 billion
- Chroma Group total of 2,972 employees (as of June, 2020)

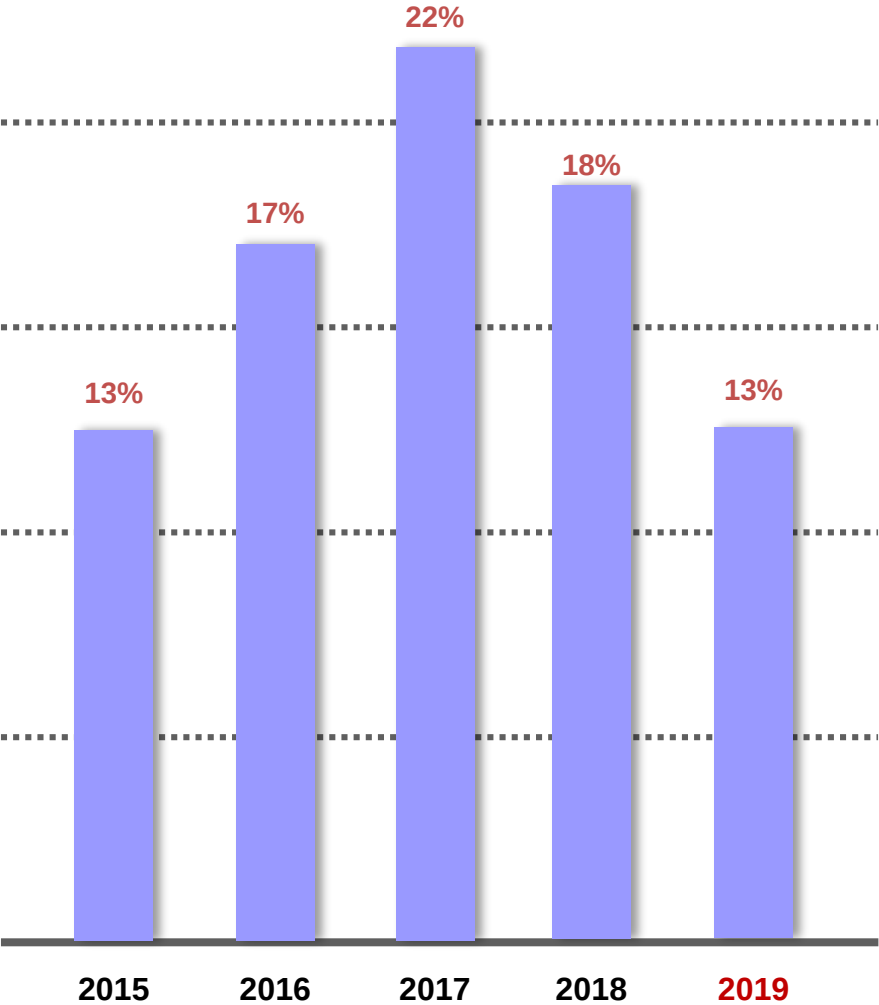


Financial Performance

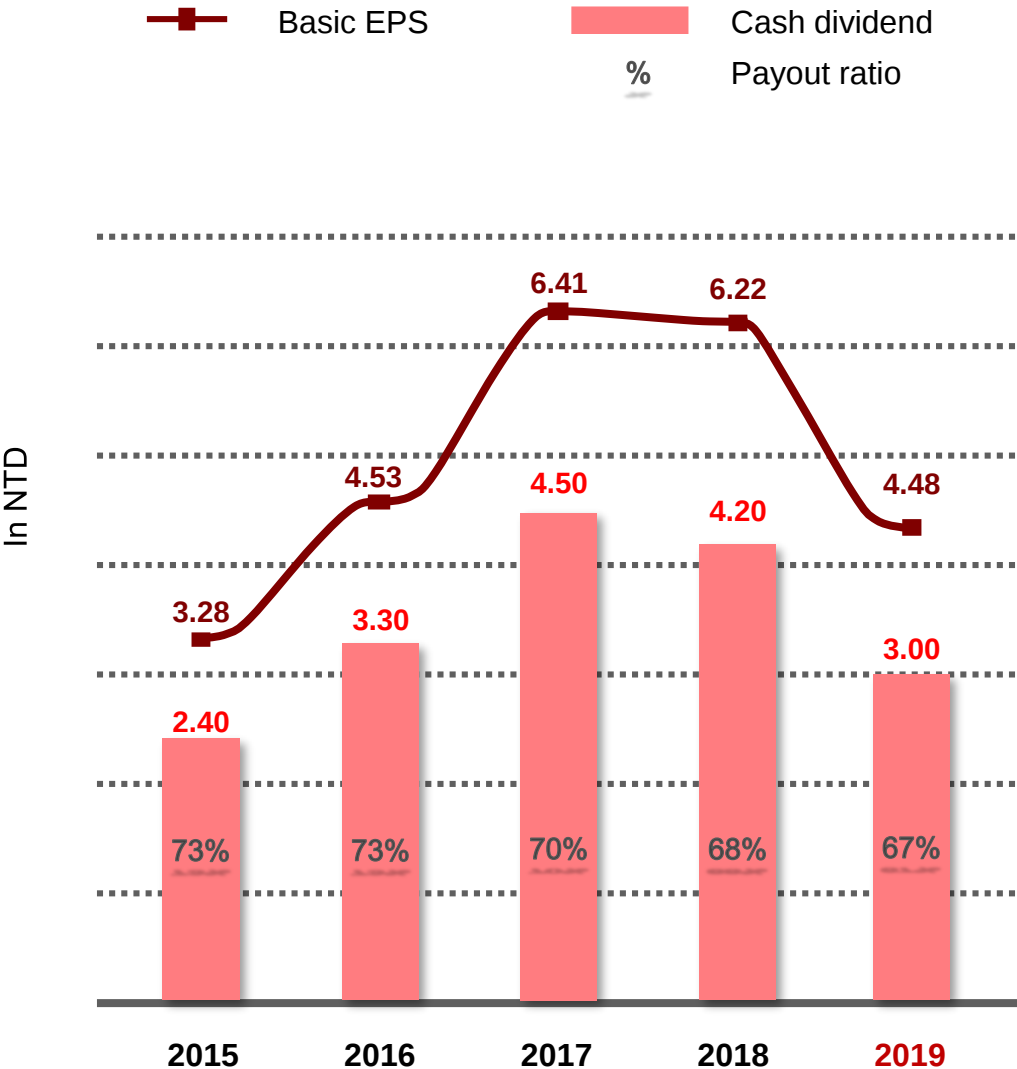


Financial Performance

ROE



Dividend



Global Operation Sites



Others: Qingdao/ Zhengzhou/ Xian/Hefei/ Chengdu/ Wuhan/ Hangzhou/ Guangzhou/ Hong Kong

FINANCIAL REVIEW



Year 2020.1H Condensed Consolidated Income Statement

Condensed Consolidated P&L

(In Million NTD, except for EPS in NTD)

	2020.1H	%	2019.1H	%	YoY %
Net Sales	7,200	100%	6,024	100%	20%
Consolidated Sales of Testing Equipment Business	5,580	78%	4,663	77%	20%
Consolidated Sales of MAS	306	4%	402	7%	(24%)
Consolidated Sales of New Material	1,171	16%	858	14%	36%
Others	143	2%	101	2%	42%
Cost of Goods Sold	(3,591)	(50%)	(3,090)	(51%)	16%
Gross Profit	3,609	50%	2,934	49%	23%
Operating Expenses:					
General & Administration	(1,646)	(23%)	(1,536)	(26%)	7%
Research & Development	(644)	(9%)	(619)	(10%)	4%
Operating Income	1,319	18%	779	13%	69%
Non-Operating Income (Expenses), net	65	1%	139	2%	(53%)
Income (Loss) Before Tax	1,384	19%	918	15%	51%
Income Tax	(303)	(4%)	(143)	(2%)	112%
Net Income	1,081	15%	775	13%	39%
Other Comprehensive Income (Losses)	(69)	(1%)	63	1%	n/a
Comprehensive Income	\$ 1,012	14%	\$ 838	14%	21%
Net Income (Losses) Attributable To:					
Shareholders of the Parent	1,054	15%	771	13%	37%
Noncontrolling Interests	27	-	4	-	n/a
	\$ 1,081	15%	\$ 775	13%	39%
EPS (Basic)	\$ 2.53		\$ 1.87		35%
EPS (Diluted)	\$ 2.51		\$ 1.84		36%

Balance Sheet Highlights & Financial Ratio

Consolidated (In Million NTD)

Balance Sheet Highlights

	<u>2020. June</u>	<u>2019. Dec</u>	<u>+ / - %</u>
Cash & Short Term Investments	3,571	3,455	3%
Inventory	3,293	2,665	24%
Short Term Debt	2,115	2,381	- 11%
Long Term Debt	2,632	2,422	9%
Shareholders Equity	14,630	14,785	- 1%
Total Assets	26,247	25,437	3%
Inventory Turnover (Day)	149	127	
AR Turnover (Day)	132	133	
AP Turnover (Day)	133	129	
Net Debt to Equity (%)	8%	9%	
ROE (%) ●	14%	13%	
ROA (%) ●	8%	8%	

Cash Position

	<u>2020.1H</u>	<u>2019.1H</u>	<u>YoY</u>
EBITDA	1,631	1,165	40%
Cash Flow from Operation	756	771	(2%)
Free Cash Flow ●●	322	(1,514)	n/a

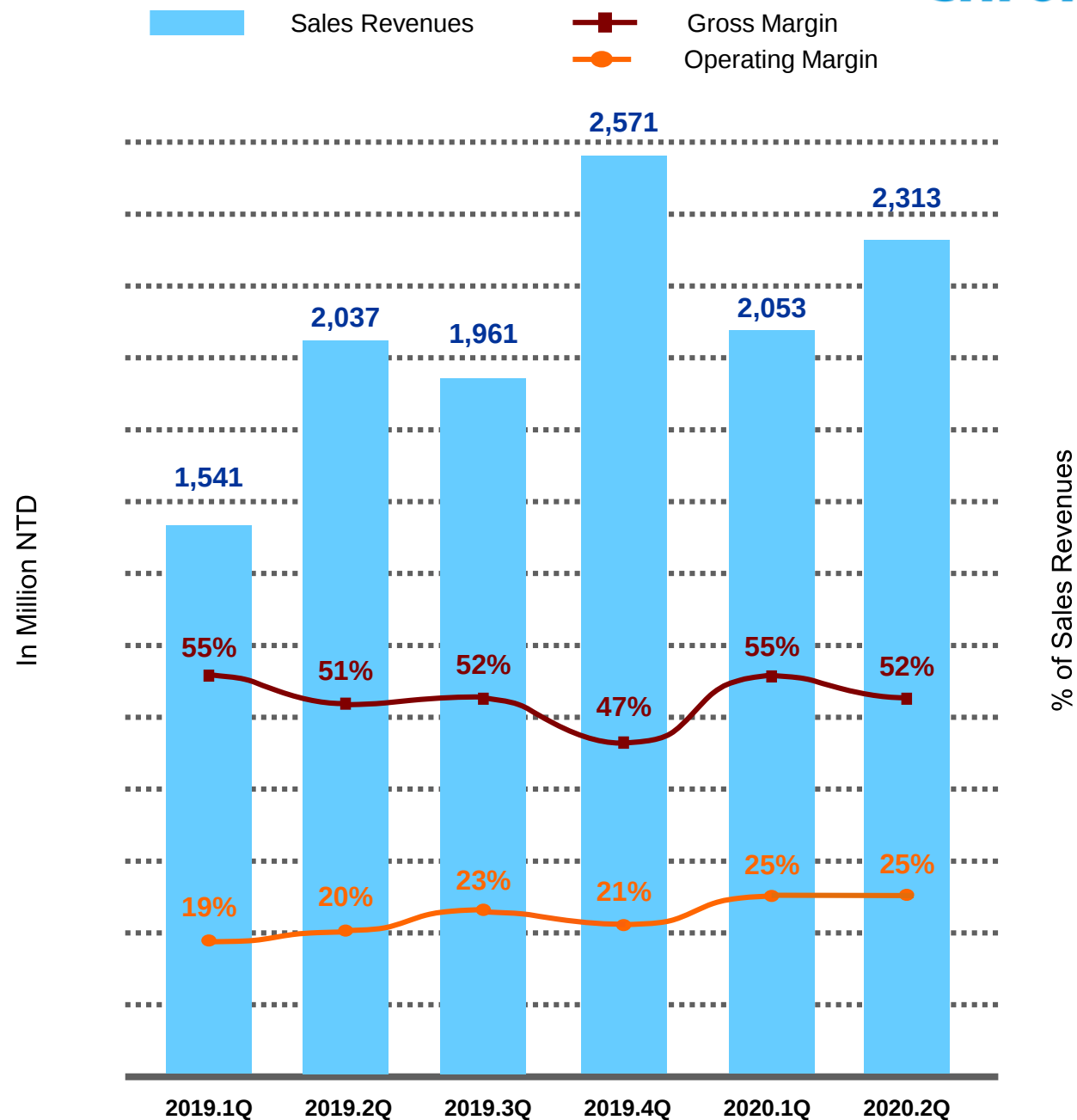
● All ROE + ROA has been annualized.

●● Free Cash Flow = Net Cash Provided by Operating Activities + (Net Cash used by Investing Activities)

Quarterly Highlights

2020.2Q Key Points

- Sales Revenue: \$ 2,313 million,
up 13% QoQ, up 14% YoY
- Gross Margin: 52%
- Operating Margin: 25%
- Net Income: NT\$ 584 million,
up 24% QoQ, up 23% YoY
- 2020.2Q Highlights:
 - The major growth in second quarter is contributed from Semiconductor / Photonics sector, which presented a growth of 21% QoQ and 43% YoY respectively.



Year 2020.2Q Condensed Income Statement

Condensed P&L – Parent Only

(In Million NTD, except for EPS in NTD)

	2020.2Q	%	2020.1Q	%	QoQ %	2019.2Q	%	YoY %
Net Sales	2,313	100%	2,053	100%	13%	2,037	100%	14%
Cost of Goods Sold	(1,112)	(48%)	(929)	(45%)	20%	(1,002)	(49%)	11%
Gross Profit	1,201	52%	1,124	55%	7%	1,035	51%	16%
Operating Expenses:								
General & Administration	(330)	(14%)	(342)	(16%)	(4%)	(337)	(17%)	(2%)
Research & Development	(302)	(13%)	(278)	(14%)	9%	(291)	(14%)	4%
Operating Income	569	25%	504	25%	13%	407	20%	40%
Non-Operating Income (Expenses), net	145	6%	63	3%	130%	106	5%	37%
Income (Loss) Before Tax	714	31%	567	28%	26%	513	25%	39%
Income Tax	(130)	(6%)	(96)	(5%)	35%	(37)	(2%)	251%
Net Income	\$ 584	25%	\$ 471	23%	24%	\$ 476	23%	23%
Other Comprehensive Income	(1)	-	(61)	(3%)	(98%)	(6)	-	(83%)
Comprehensive Income	\$ 583	25%	\$ 410	20%	42%	\$ 470	23%	24%
EPS (Basic)	\$ 1.40		\$ 1.13		24%	\$ 1.15		22%
EPS (Diluted)	\$ 1.39		\$ 1.12		24%	\$ 1.13		23%

● 100% owned subsidiaries' income - New Material: 4m (QoQ ↓ 64%, YoY ↓ 56%), MAS: 16m (QoQ n/a, YoY ↑ 33%).

Year 2020.1H Condensed Income Statement

Condensed P&L – Parent Only

(In Million NTD, except for EPS in NTD)

	2020.1H	%	2019.1H	%	YoY %
Net Sales	4,365	100%	3,557	100%	23%
Cost of Goods Sold	(2,041)	(47%)	(1,699)	(47%)	20%
Gross Profit	2,324	53%	1,879	53%	24%
Operating Expenses:					
Selling and General & Administration	(672)	(15%)	(627)	(17%)	7%
Research & Development	(580)	(13%)	(556)	(16%)	4%
Operating Income	1,072	25%	695	20%	54%
Non-Operating Income (Expenses), net	208	4%	159	4%	31%
Income (Loss) Before Tax	1,280	29%	854	24%	50%
Income Tax	(226)	(5%)	(83)	(2%)	172%
Net Income	\$ 1,054	24%	\$ 771	22%	37%
Other Comprehensive Income	(62)	(1%)	60	1%	n/a
Comprehensive Income	\$ 992	23%	\$ 831	23%	19%
EPS (Basic)	\$ 2.53		\$ 1.87		35%
EPS (Diluted)	\$ 2.51		\$ 1.84		36%

● Non-operating Income included 100% owned subsidiaries' income - New Material: 15m (YoY ↓ 12%), MAS: (57m).

Balance Sheet Highlights & Financial Ratio

Parent Only (In Million NTD)

Balance Sheet Highlights

	<u>2020. June</u>	<u>2019. Dec</u>	+ / - %
Cash & Short Term Investment	461	459	-
Inventory	2,650	2,026	31%
Short Term Debt	1,350	1,615	- 16%
Long Term Debt	2,400	2,285	5%
Shareholders Equity	14,313	14,489	- 1%
Total Assets	22,856	21,807	5%
Inventory Turnover (Day)	206	178	
AR Turnover (Day)	119	123	
AP Turnover (Day)	120	102	
Net Debt to Equity (%)	23%	24%	
ROE (%) ●	15%	13%	
ROA (%) ●	9%	9%	

Cash Position

	<u>2020. 1H</u>	<u>2019.1H</u>	<u>YoY</u>
EBITDA	1,409	974	45%
Cash Flow from Operation	663	961	(31%)
Free Cash Flow ●●	102	(1,240)	n/a

● All ROE + ROA has been annualized.

●● Free Cash Flow = Net Cash Provided by Operating Activities + (Net Cash used by Investing Activities)

Chroma

OPERATION HIGHLIGHT

Test
and
Auto
Solution
providers
blooming

2020.2Q Product Mix and Consolidated Sales Breakdown

(Unit: Million NTD)

	2020. 2Q	%	QoQ	YoY
Test Instruments & Automatic Testing System (ATS)	1,242	54%	6%	(1%)
Semiconductor / Photonics Test Solutions	824	36%	21%	43%
Turnkey Solutions	60	2%	9%	(8%)
Service & Others	187	8%	26%	38%
Total of Parent Company Sales	2,313	100%	13%	14%
+ Sales from Overseas Operations & Related Subsidiaries	710		41%	18%
Chroma Consolidated Testing Equipment Business	3,023	79%	18%	14%
MAS	129	3%	(27%)	-
New Material	612	16%	9%	32%
Others	65	2%	(17%)	30%
Consolidated Sales	3,829	100%	14%	17%

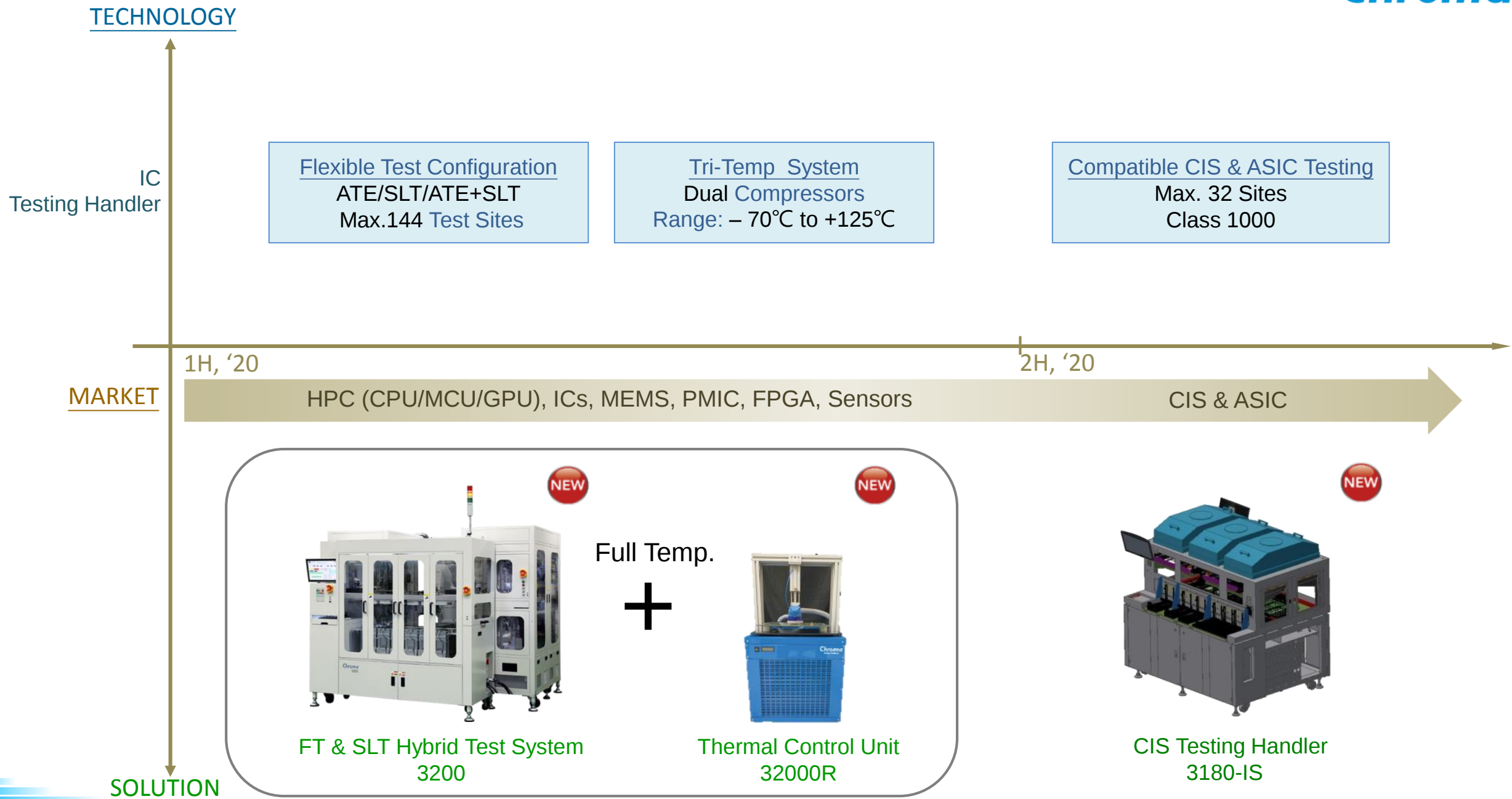
2020.1H Product Mix and Consolidated Sales Breakdown

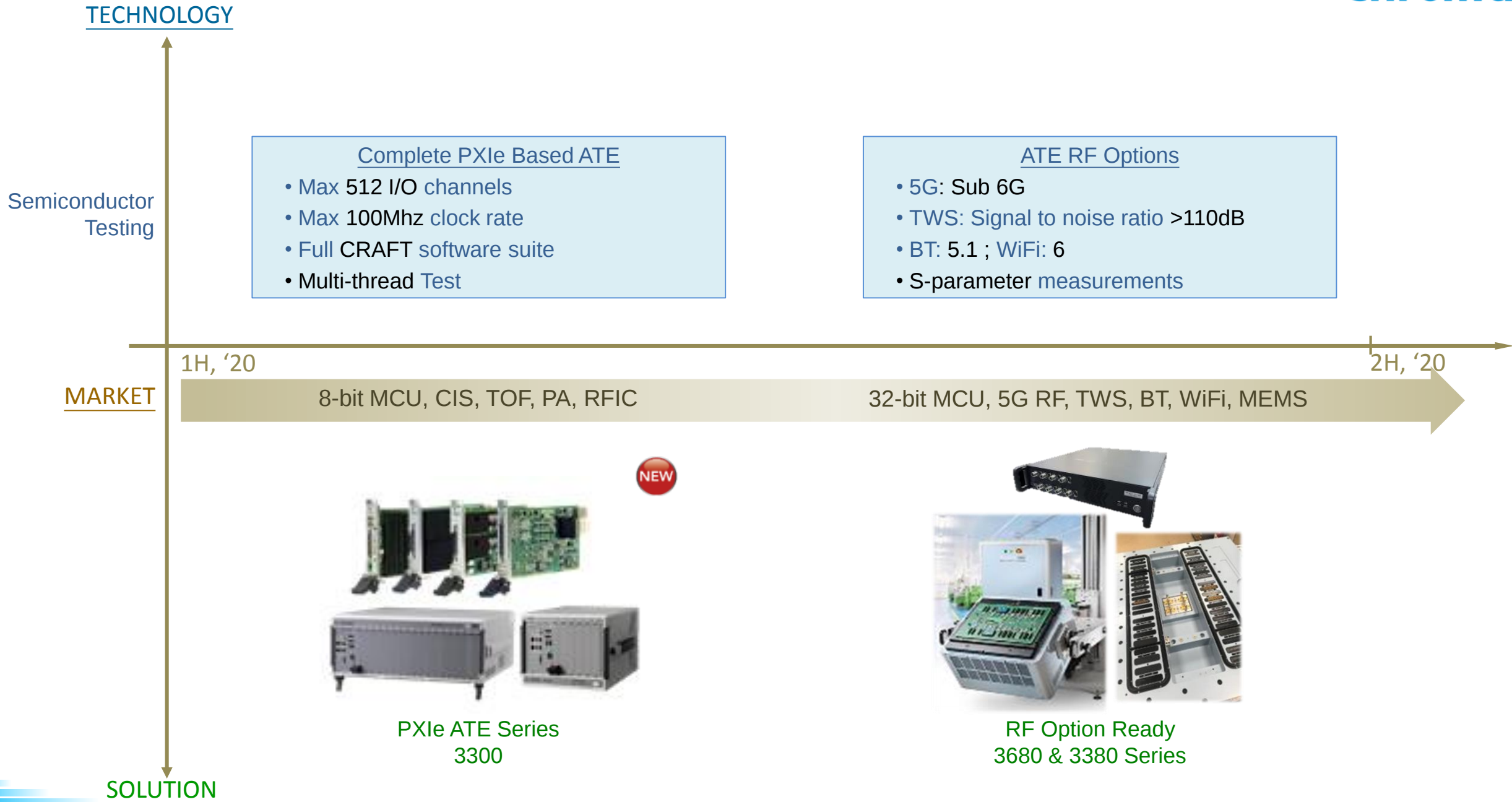
(Unit: Million NTD)

	<u>2020.1H</u>	<u>%</u>	<u>YoY</u>	<u>2019</u>	<u>%</u>
Test Instruments & Automatic Testing System (ATS)	2,410	55%	9%	4,605	57%
Semiconductor / Photonics Test Solutions	1,506	34%	57%	2,311	28%
Turnkey Solutions	115	3%	(30%)	632	8%
Service & Others	334	8%	33%	563	7%
Total of Parent Company Sales	4,365	100%	22%	8,111	100%
+ Sales from Overseas Operations & Related Subsidiaries	1,214		12%	2,435	
Chroma Consolidated Testing Equipment Business	5,580	78%	20%	10,546	76%
MAS	306	4%	(24%)	1,009	7%
New Material	1,171	16%	36%	2,097	15%
Other Subsidiaries	143	2%	42%	258	2%
Consolidated Sales	7,200	100%	20%	13,910	100%

- Chroma first half consolidated sales revenues reached 7.2 billion NTD, presented a growth of 20% YoY. The Parent Company sales reached 4.4 billion, presented a growth of 22% YoY, mainly contributed from Semiconductor / Photonics testing solutions which increased 57% compared to last year.
- 2020 Business Outlook:
 - ✓ Rapidly development of AIoT (convergence of AI and IoT) and increasing the applications of high performance chips, such as CPU/GPU, Sensors, RF connections etc. which will be continuously driving the sales growth in Semiconductors / Photonics testing solutions. Particularly from:
 - High Reliability Testing Solutions : Burn-in Test, SLT Test and thermal control / temperature stimulation.
 - VCSEL / ToF testing for 3D sensing
 - OFC (Optical Fiber Communication) testing
 - ✓ The Test Instruments & ATS for power testing solutions are launching new generation of power electronics testing, which will enhance the power density and functional testing for using in green energy, included EV related components, battery module / pack and smart-grid and 5G / Server related power testing.

Semiconductor/Photonics Test Solutions





TECHNOLOGY

Photonics Testing

Photonics Wafer Tester

- LIV & NF 2-in-1 test with one probe mark
- Measureable Optical Power Range: 1mW~5W
- Throughput 2300UPH

Photonics Module Tester

- Max. 4 different optical heads
- Measureable Optical Power Range: 1uW~20W
- Wavelength Resolution: 0.05nm

MARKET

1H, '20

2H, '20

3D Sensing, LiDAR, Optical Fiber Communication



NEW

Photronics Device Probing LIV & NF Test System
58635-LN



NEW

Photronics Module Semi-Automatic Test System
58625

SOLUTION

TECHNOLOGY

Passive
Component Testing

MLCC Test Application

- 5G: 1.0uF, 4Vdc, 0.4x0.2mm
- Communication: 100~300uF, 4~6Vdc, 3.2x2.5mm
- Automobile: 8~100nF, 600~1,000Vdc, 6.1x5.1mm

Power Testing

Two-quadrant Operation

- Bidirectional: Source & Load
- Power: 0~600V, 0-120A, 6kW-18kW
- Load Changed +90%~ -90%, <4ms

Regenerative Simulator

- High Power Density: 15kVA at 3U
- Universal AC Input : 200Vac~480Vac
- 100% Regenerative Capability

1H '2020

2H, '20

MARKET

MLCC

EV Power Electronics, Green Energy (PV,ESS, PCS, Battery/Fuel Cell), Server Power, Telecom Power, HV UPS



Insulation Tester
11210



Bidirectional DC Power
62000D Series

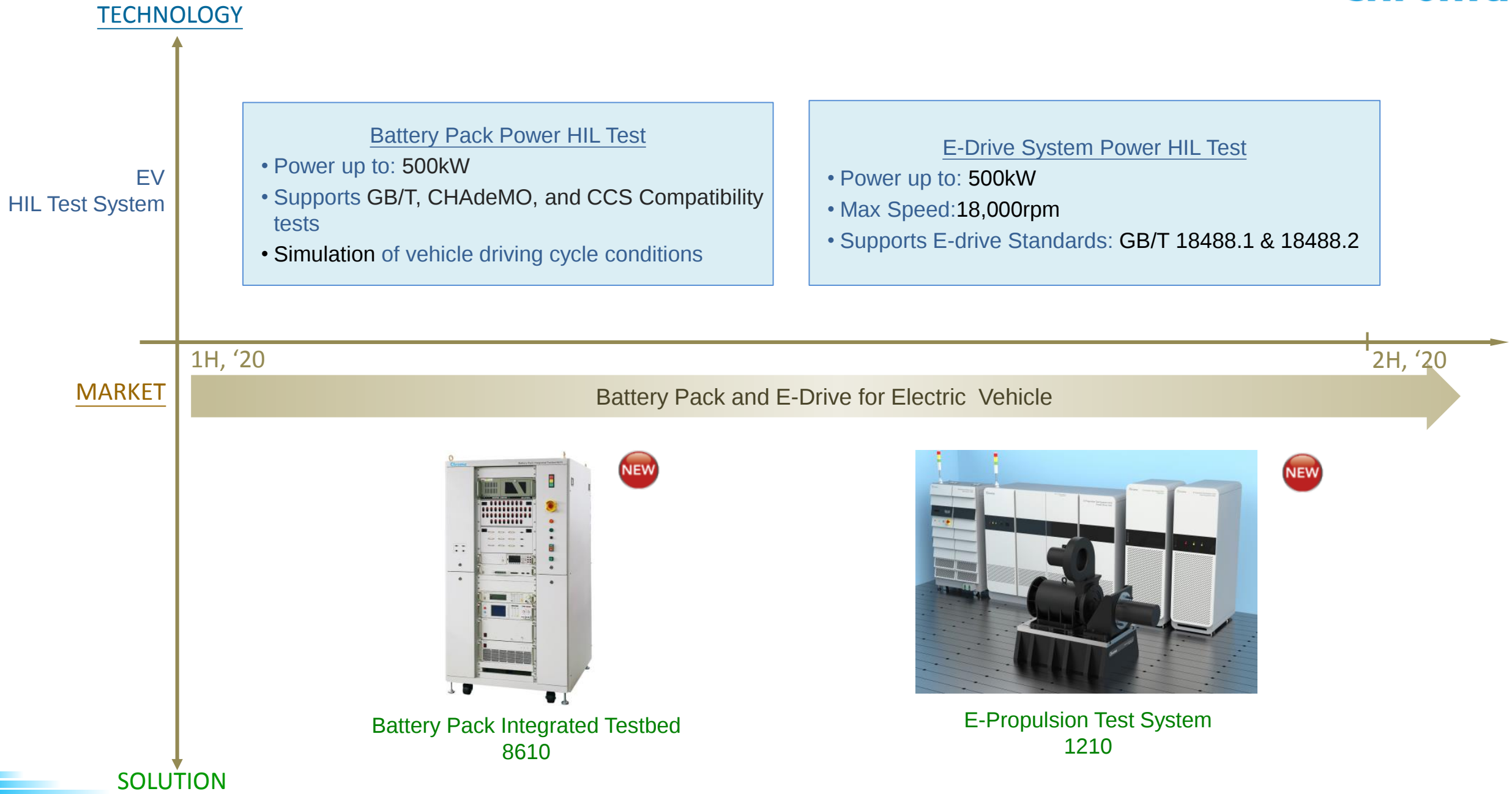
NEW



Regenerative Grid Simulator
61815

NEW

SOLUTION

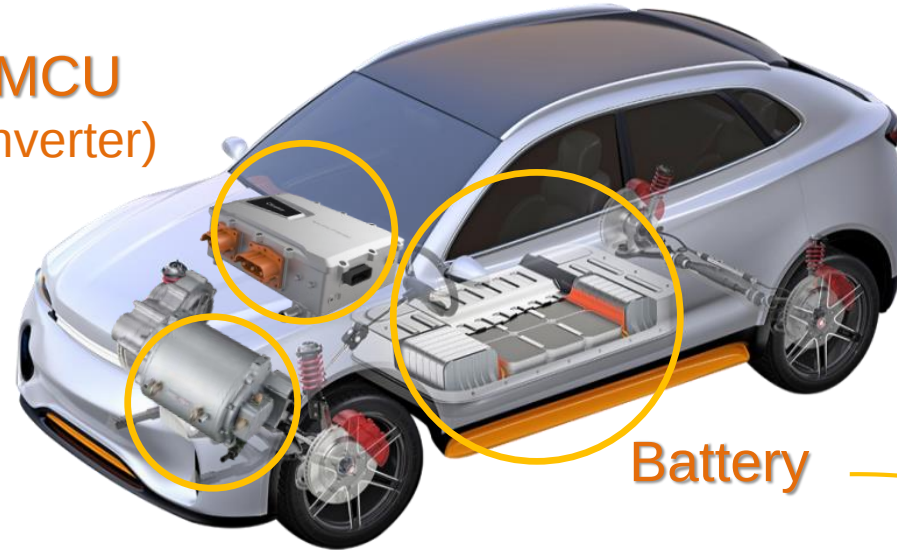


Complete Test Solution for EV Powertrain Key Components



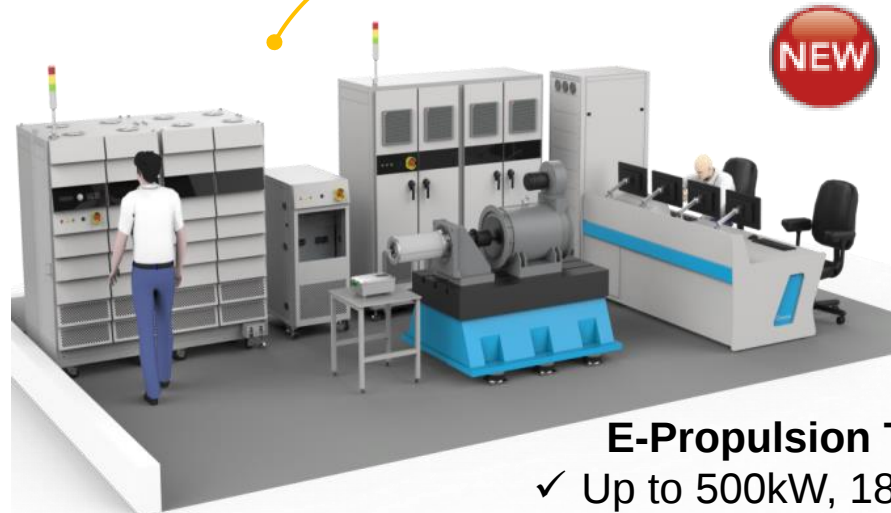
Motor Control Unit ATS
✓ Control Board
✓ Driver Board

MCU
(Inverter)



Battery

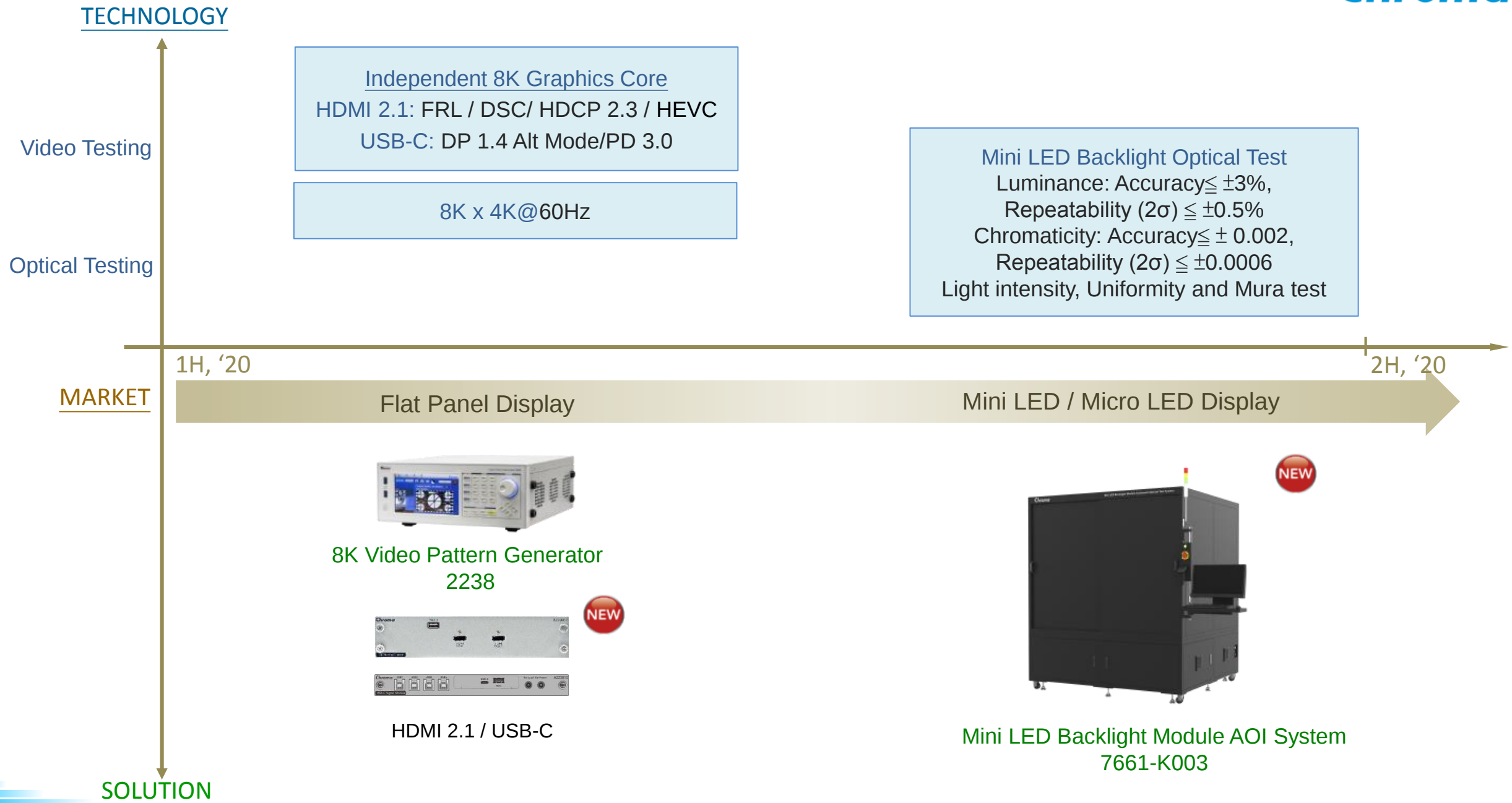
Motor

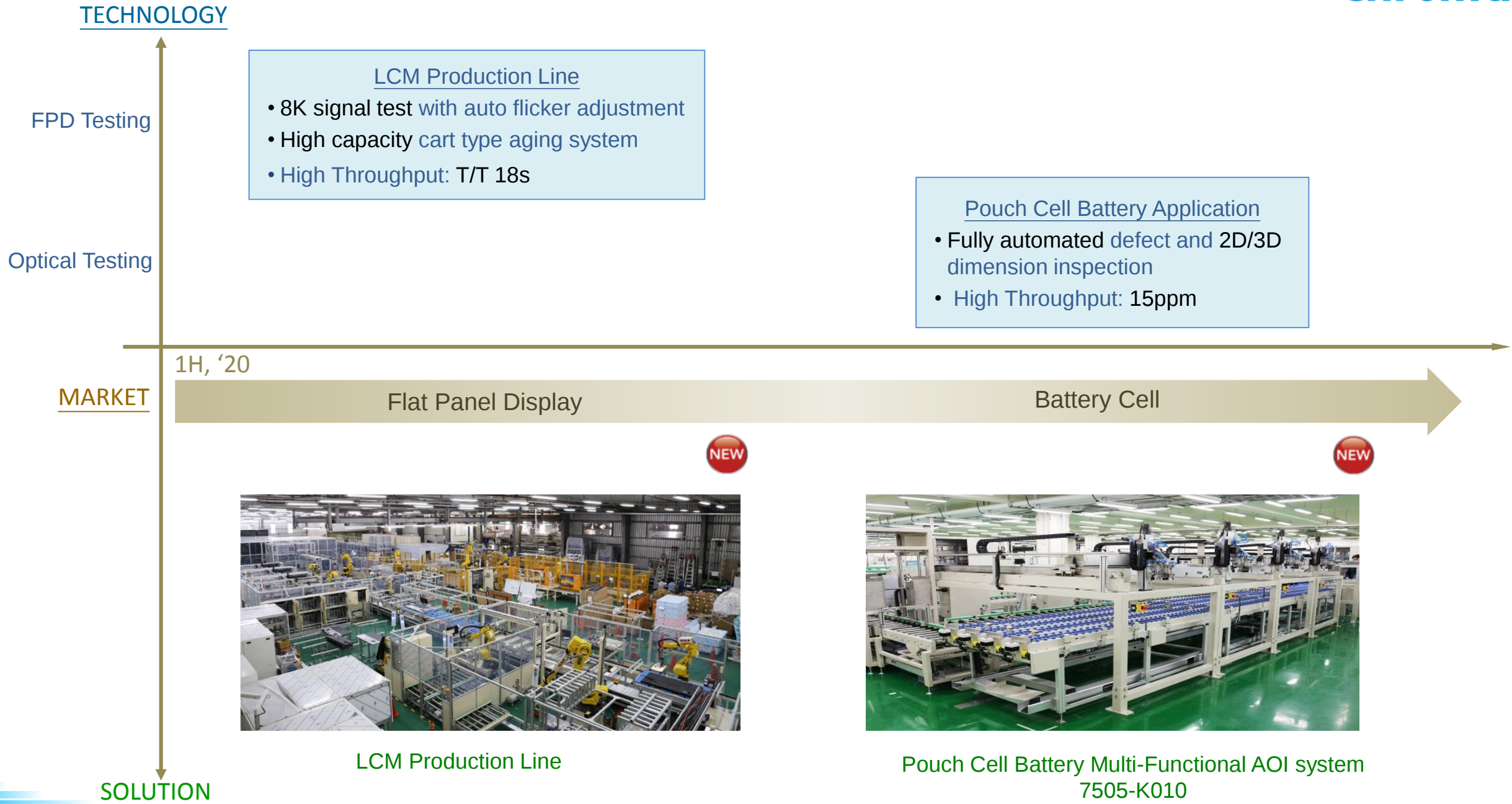


E-Propulsion Test System
✓ Up to 500kW, 18,000rpm



Battery Pack ATS
✓ 5~600kW (parallel)
✓ Up to 1200V





SuperSizer™ Series

The Unprecedented Yield Enhancer in the Nanometer Range



SuperSizer™ II

Semi S2 certified
For CMP slurry

US Pat. No 10545082B2
US Pat. No 9625365B2



NEW

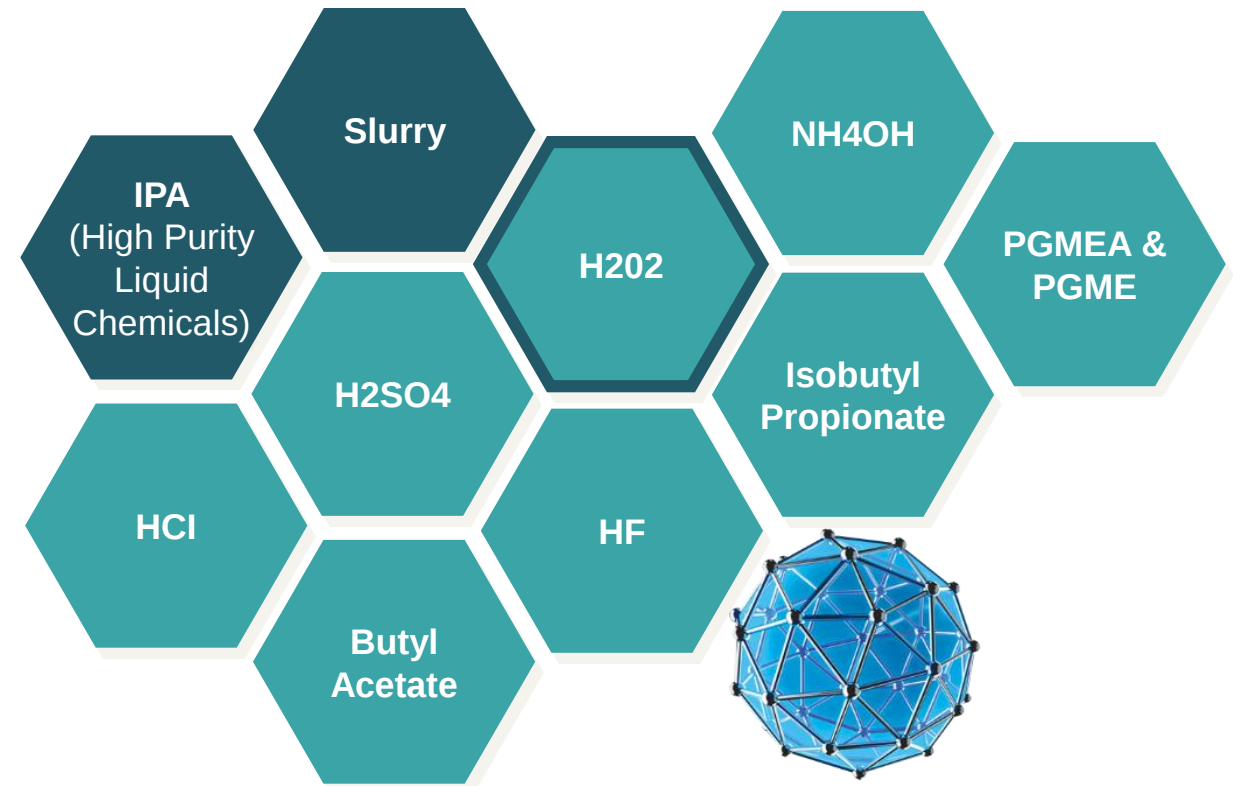
SuperSizer™ V

Semi S2 certified
TS explosion-proof certified
For high purity liquid chemicals

TW Pat. No I583439B
TW Pat. No I549745B

- ✓ Measures particle sizes down to **3nm**
- ✓ High resolution : ~3.5 to 10% of the particle size can be achieved
- ✓ Free from bubble interference
- ✓ 24/7 automatic monitoring

Monitoring Materials



Driving Innovation to Success **Chroma**

Thank
You !

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