



CHROMA ATE INC.

2018.1Q Earnings Conference Call

Paul Ying, CFO

30th April, 2018

This presentation contains some forward-looking statements that are subject to substantial risks and uncertainties. Typically, these statements contain words such as “anticipate”, “believe”, “could”, “estimate”, “expect”, “intend”, “plan”, “forecast”, “project”, “predict”, “potential”, “continue”, “may”, “should”, “will”, and “would” or similar words. You should consider these forward-looking statements carefully because such statements are only our expectations or projections about future events, and actual results may differ materially from those expressed or implied by such statements. The forward-looking statements in this presentation include, but are not limited to, growth rates for various markets estimated by third party sources, future products and technology development, widespread market acceptance of the hosted delivery model, future revenue growth and profitability. You should be cautioned that the forward-looking statements are no guarantee of our future performance. The forward-looking statements contained in this presentation are made only as of the date of this presentation and we undertake no obligation to update the forward-looking statements to reflect subsequent events or circumstances, except as required by law. This presentation and the information contained herein are the property of Chroma Ate Inc.

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

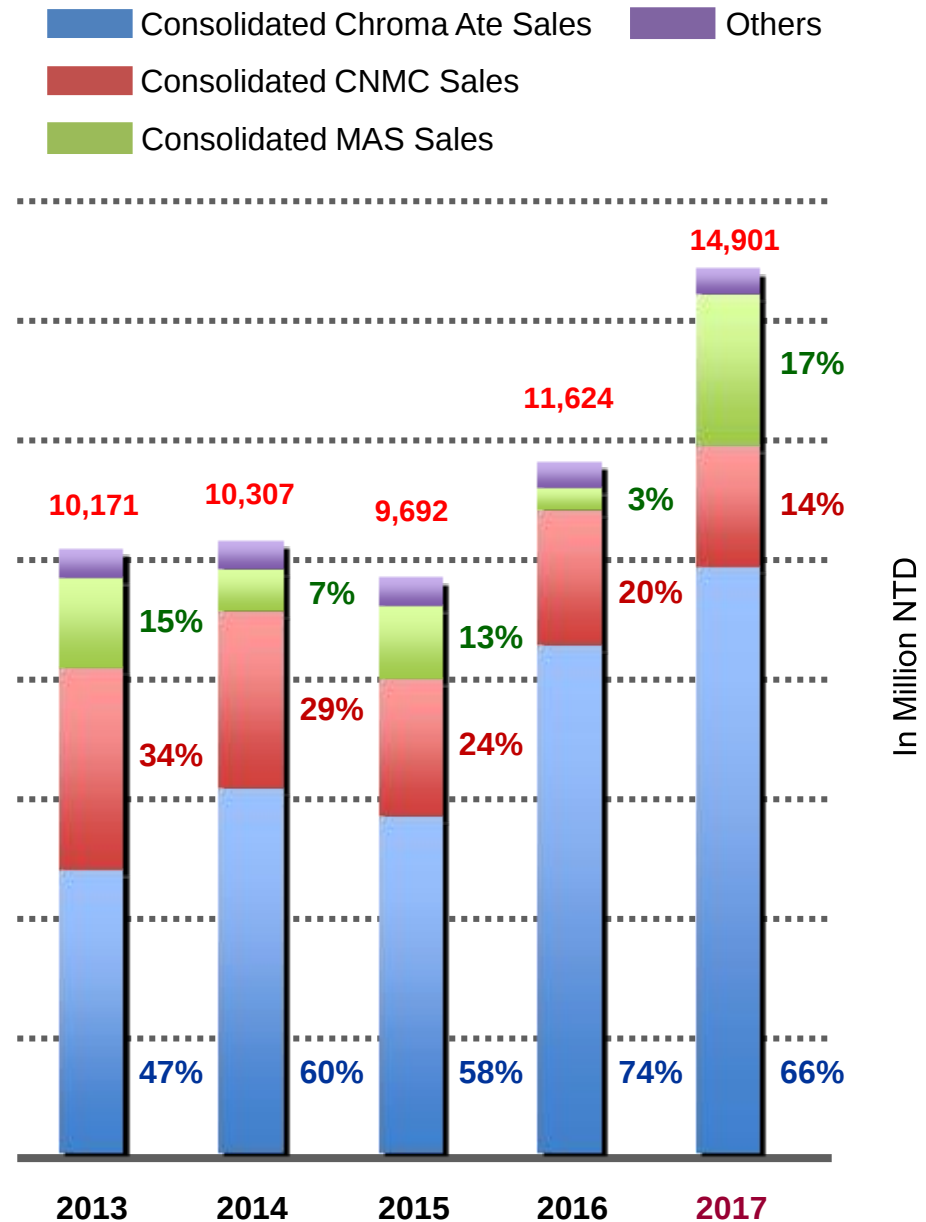
Chroma

CORPORATE PROFILE

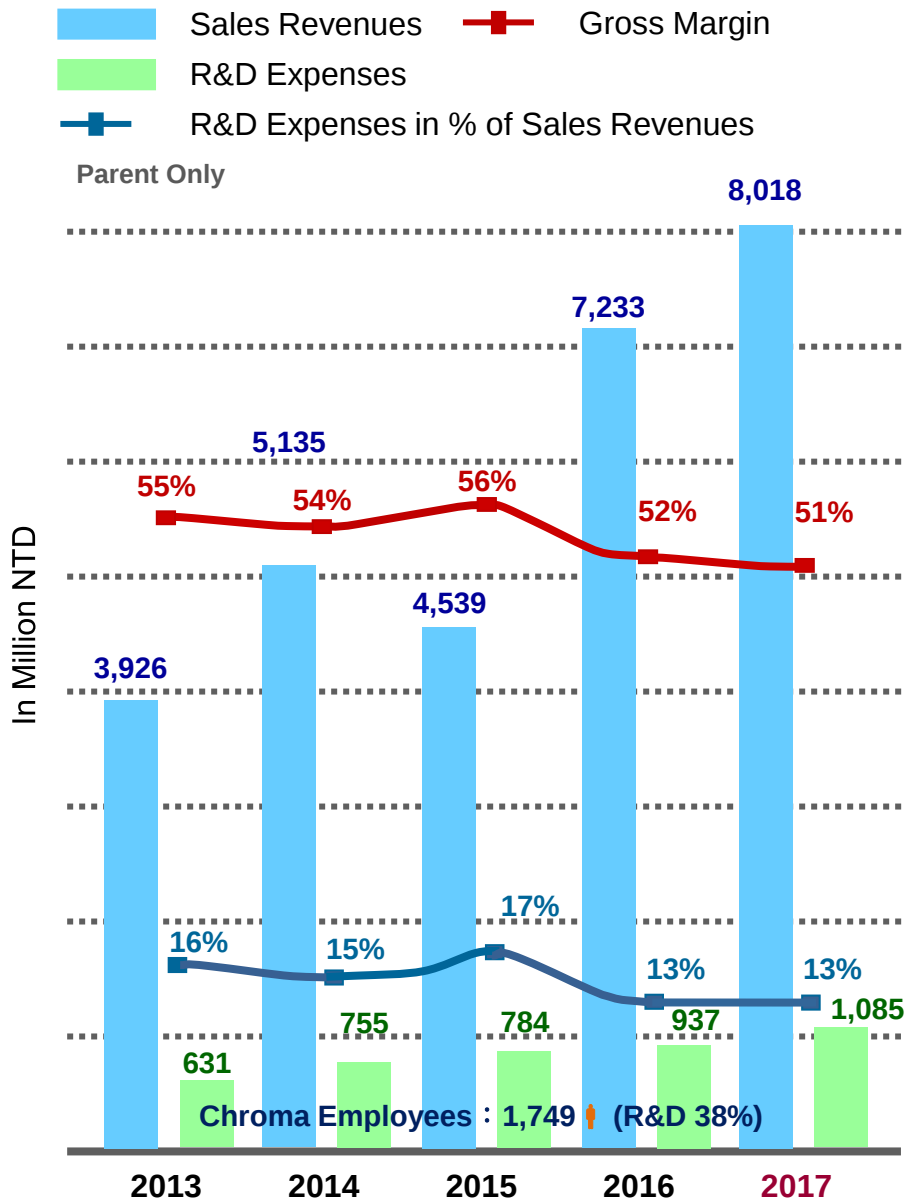
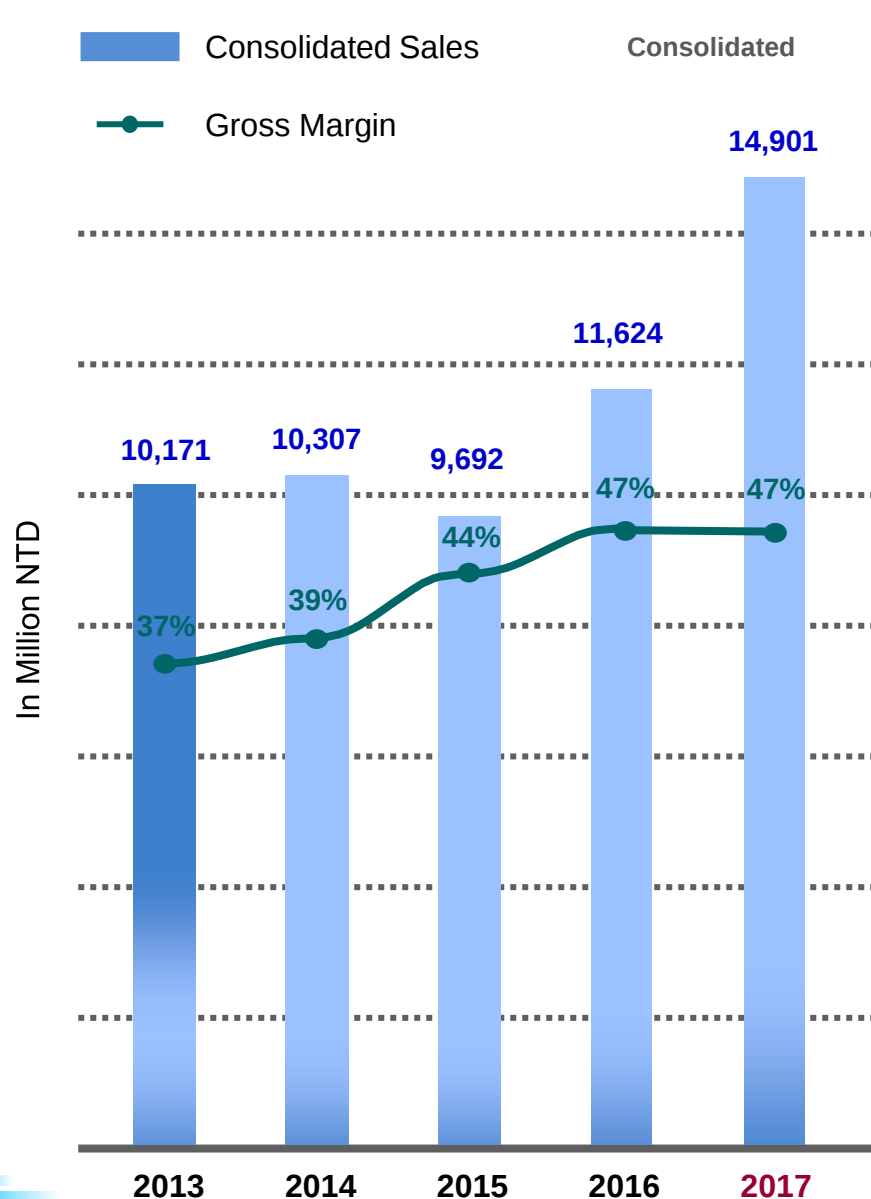
**Test
and
Auto
Solution
providers**

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).
- 2017 Consolidated Sales : NT\$ 14.9 billion
- 2017 Net Income: NT\$2.6 billion
- Chroma Group total of 2,912 employees (as March, 2018)

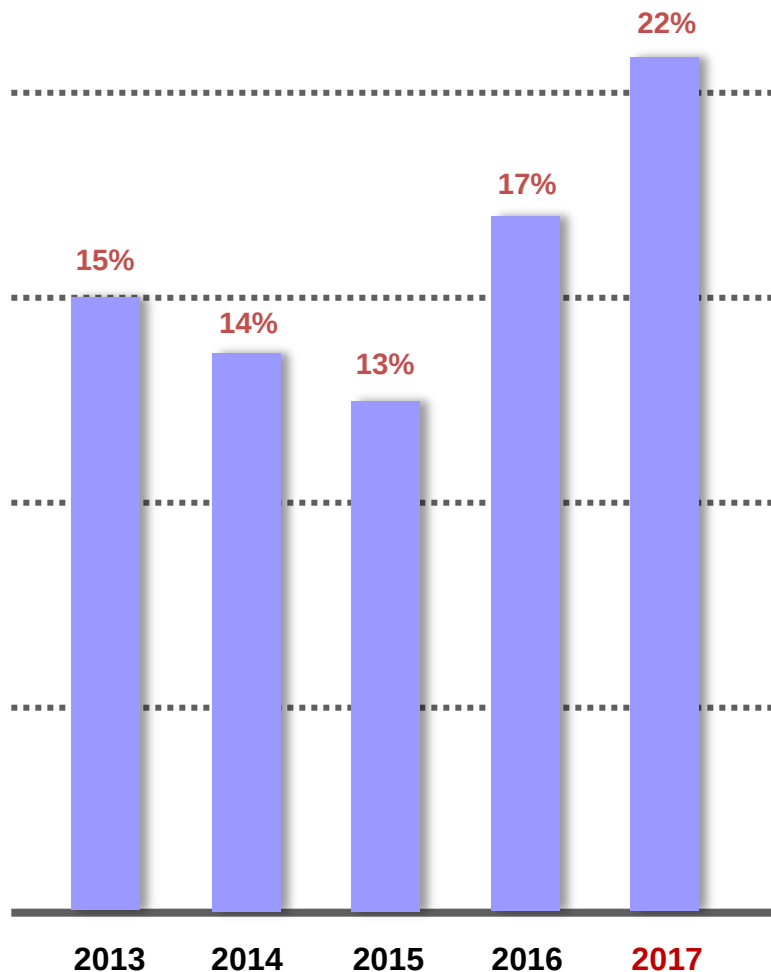


Financial Performance

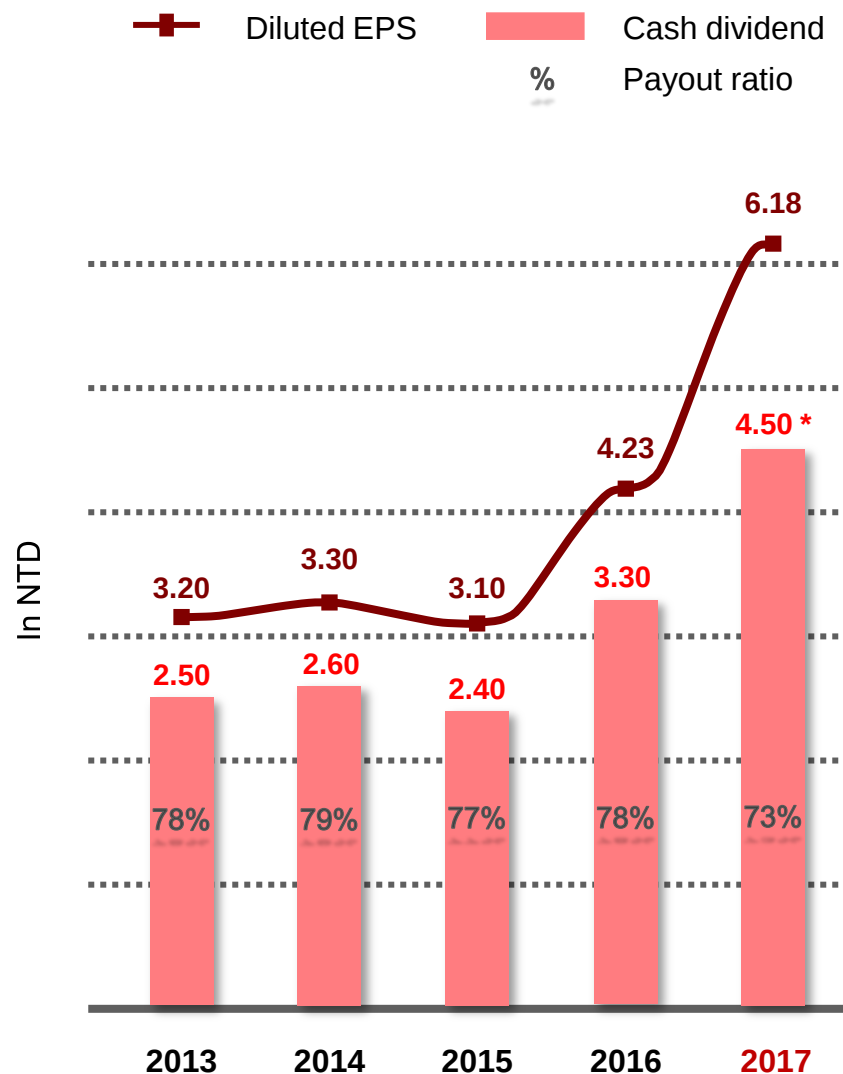


Financial Performance

ROE



Dividend



* The dividend will be paid out after the resolutions of Annual General Shareholders meeting.

Global Operation Sites

43

Operation
Sites

93

Distributors

EST. 1999



Netherlands:
Ede

EST. 2017



Germany:
Augsburg

EST. 2008



Japan:
Shin-Yokohama/
Nagoya/ Osaka

EST. 2018



Korea:
Pangyo

EST. 1993



United States:
Irvine, CA
Santa Clara, CA
Chandler, AZ

EST. 2001



United States:
Foothill Ranch, CA
Marlborough, MA
Mexico :
Ciudad Juarez

EST. 1998



China/ Shenzhen

EST. 1999



China/ Beijing

EST. 2000



China/ Shanghai

EST. 2001



China/ Dongguan



Taiwan: Taoyuan (Headquarters)

EST. 2003



Taiwan: Hsinchu

EST. 2009



Taiwan: Kaohsiung

EST. 2006



China/ Suzhou

EST. 2011



China/ Xiamen

EST. 2011



China/ Chongqing

EST. 2016



Quantel : Singapore

Others:

India: New Delhi/ Mumbai/ Bangalore

Thailand: Bangkok

Vietnam: Hanoi/ Ho Chi Minh

Malaysia: Kuala Lumpur/ Penang

Philippines: Manila/ Cebu

Indonesia: Jakarta

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

FINANCIAL REVIEW

The 2018.1Q financial information are unaudited.



Year 2018.1Q Condensed Consolidated Income Statement

Condensed Consolidated P&L

(In Million NTD, except for EPS in NTD)

	2018.1Q	%	2017.1Q	%	YoY %
Net Sales	3,466	100%	2,776	100%	25%
Consolidated Sales of Testing Equipment Business	2,358	68%	2,107	76%	12%
Consolidated Sales of MAS	605	18%	80	3%	656%
Consolidated Sales of New Material	426	12%	513	18%	(17%)
Others	77	2%	76	3%	1%
Cost of Goods Sold	(1,902)	(55%)	(1,409)	(51%)	35%
Gross Profit	1,564	45%	1,367	49%	14%
Operating Expenses:					
General & Administration	(702)	(20%)	(620)	(22%)	13%
Research & Development	(302)	(9%)	(279)	(10%)	8%
Operating Income	560	16%	468	17%	20%
Non-Operating Income (Expenses), net	17	1%	(118)	(4%)	n/a
Income (Loss) Before Tax	577	17%	350	13%	65%
Income Tax	(155)	(5%)	(68)	(3%)	128%
Net Income	422	12%	282	10%	50%
Other Comprehensive Income (Losses)	23	1%	(178)	(6%)	n/a
Comprehensive Income	\$ 445	13%	\$ 104	4%	328%
Net Income (Losses) Attributable To:					
Shareholders of the Parent	431	12%	288	10%	50%
Noncontrolling Interests	(9)	-	(6)	-	50%
	\$ 422	12%	\$ 282	10%	50%
EPS (Basic)	\$ 1.06		\$ 0.75		41%
EPS (Diluted)	\$ 1.03		\$ 0.72		43%

Balance Sheet Highlights & Financial Ratio

Consolidated (In Million NTD)

Balance Sheet Highlights

	<u>2018. Mar</u>	<u>2017. Dec</u>	+ / - %
Cash & Short Term Investments	6,835	7,028	- 3%
Inventory	2,597	2,431	7%
Short Term Debt	1,280	1,688	- 24%
Long Term Debt	1,450	1,161	25%
Shareholders Equity	14,163	13,463	5%
Total Assets	21,804	22,018	- 1%
Inventory Turnover (Day)	119	101	
AR Turnover (Day)	101	87	
AP Turnover (Day)	115	116	
Net Debt to Equity (%)	Net cash	Net cash	
ROE (%) ●	12%	21%	
ROA (%) ●	8%	13%	

Cash Position

	<u>2018.1Q</u>	<u>2017.1Q</u>	<u>QoQ</u>	<u>YoY</u>
EBITDA	661	435	(43%)	52%
Cash Flow from Operation	20	(235)	n/a	n/a
Free Cash Flow ●●	(777)	(476)	n/a	63%

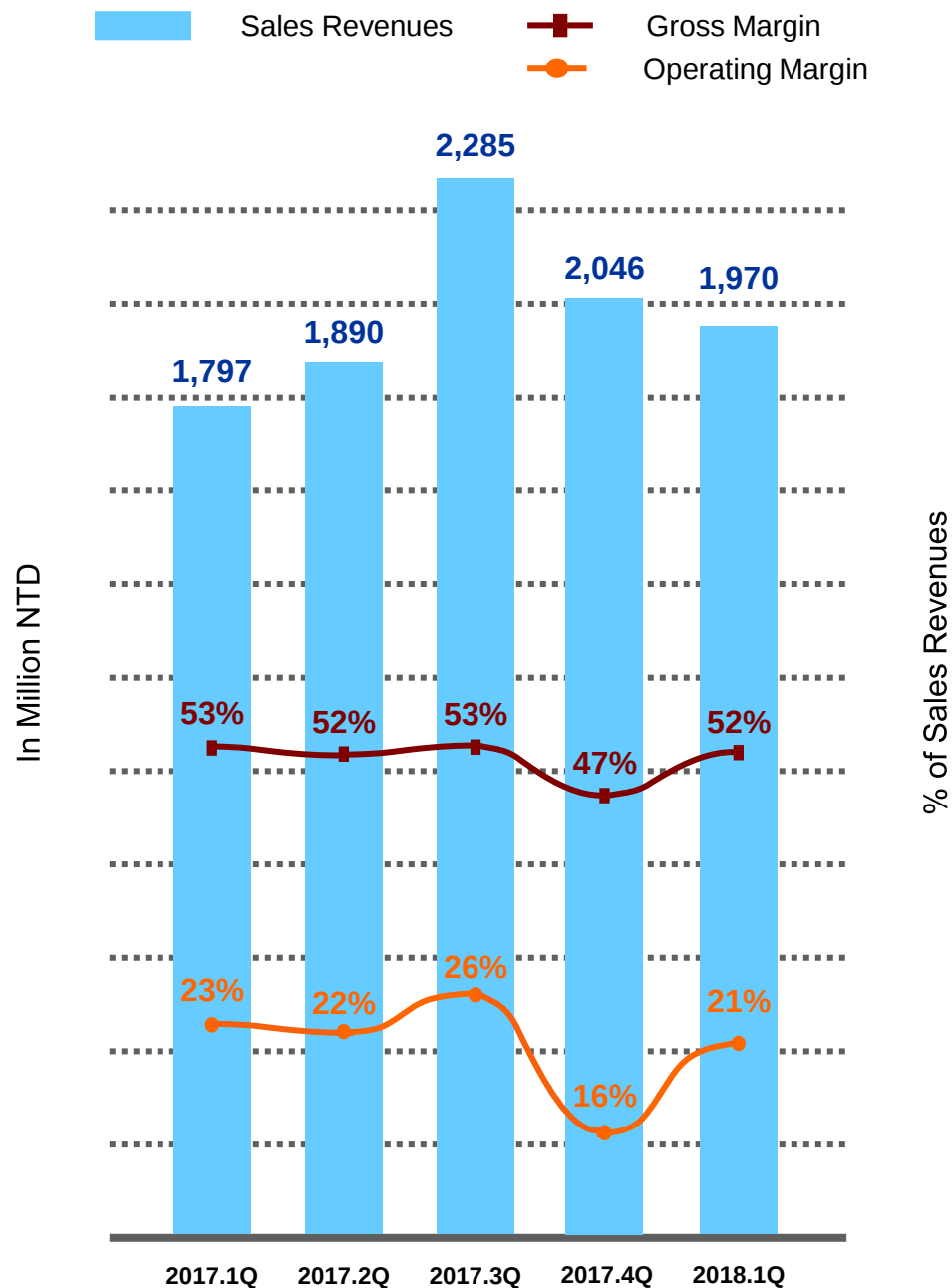
● All ROE + ROA has been annualized.

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

Quarterly Highlights

2018.1Q Key Points

- Sales Revenue: \$ 1,970 million, down 4% QoQ, up 10% YoY
- Gross Margin: 52%
- Operating Margin: 21%
- Net Income: NT\$ 431 million, down 51% QoQ, up 50% YoY
- 2018.1Q Highlights:
 - The sales growth compared to last year first quarter was coming from Turnkey Solutions, presented a growth of 241% YoY.



Year 2018.1Q Condensed Income Statement

Condensed P&L – Parent Only

(In Million NTD, except for EPS in NTD)

	<u>2018.1Q</u>	%	<u>2017.4Q</u>	%	QoQ %	<u>2017.1Q</u>	%	YoY %
Net Sales	1,970	100%	2,046	100%	(4%)	1,797	100%	10%
Cost of Goods Sold	(955)	(48%)	(1,079)	(53%)	(11%)	(850)	(47%)	12%
Gross Profit	1,015	52%	967	47%	5%	947	53%	7%
Operating Expenses:								
General & Administration	(319)	(16%)	(368)	(18%)	(13%)	(278)	(16%)	15%
Research & Development	(275)	(14%)	(281)	(13%)	(2%)	(252)	(14%)	9%
Operating Income	421	22%	318	16%	32%	417	23%	1%
Non-Operating Income (Expenses), net ●	128	6%	617	30%	(79%)	(76)	(4%)	n/a
Income (Loss) Before Tax	549	28%	935	46%	(41%)	341	19%	61%
Income Tax	(118)	(6%)	(47)	(3%)	151%	(53)	(3%)	123%
Net Income	\$ 431	22%	\$ 888	43%	(51%)	\$ 288	16%	50%
Other Comprehensive Income	24	1%	30	2%	(20%)	(173)	(10%)	n/a
Comprehensive Income	\$ 455	23%	\$ 918	45%	(50%)	\$ 115	6%	296%
EPS (Basic)	\$ 1.06		\$ 2.18		(51%)	\$ 0.75		41%
EPS (Diluted)	\$ 1.03		\$ 2.11		(51%)	\$ 0.72		43%

● 100% owned subsidiaries' income - New Material: 4m (QoQ ↓ 20%, YoY ↑ 471%), MAS: 106m (QoQ ↓ 80%, YoY n/a).

Balance Sheet Highlights & Financial Ratio

Parent Only (In Million NTD)

2018. Mar

2017. Dec

+ / - %

Balance Sheet Highlights

Cash & Short Term Investment	2,912	2,878	1%
Inventory	2,033	1,862	9%
Short Term Debt	1,166	1,500	- 22%
Long Term Debt	1,299	1,000	30%
Shareholders Equity	13,942	13,230	5%
Total Assets	18,986	18,560	2%

Inventory Turnover (Day)	184	155
AR Turnover (Day)	138	123
AP Turnover (Day)	117	120
Net Debt to Equity (%)	Net cash	Net cash

ROE (%) ●	13%	22%
ROA (%) ●	9%	15%

Cash Position

2018.1Q

2017.1Q

QoQ

YoY

EBITDA	596	385	(39%)	55%
Cash Flow from Operation	230	(66)	(70%)	n/a
Free Cash Flow ●●	(866)	(326)	n/a	166%

● All ROE + ROA has been annualized.

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

OPERATION HIGHLIGHT



Chroma Ate Inc. Sales Breakdown by Testing Solutions



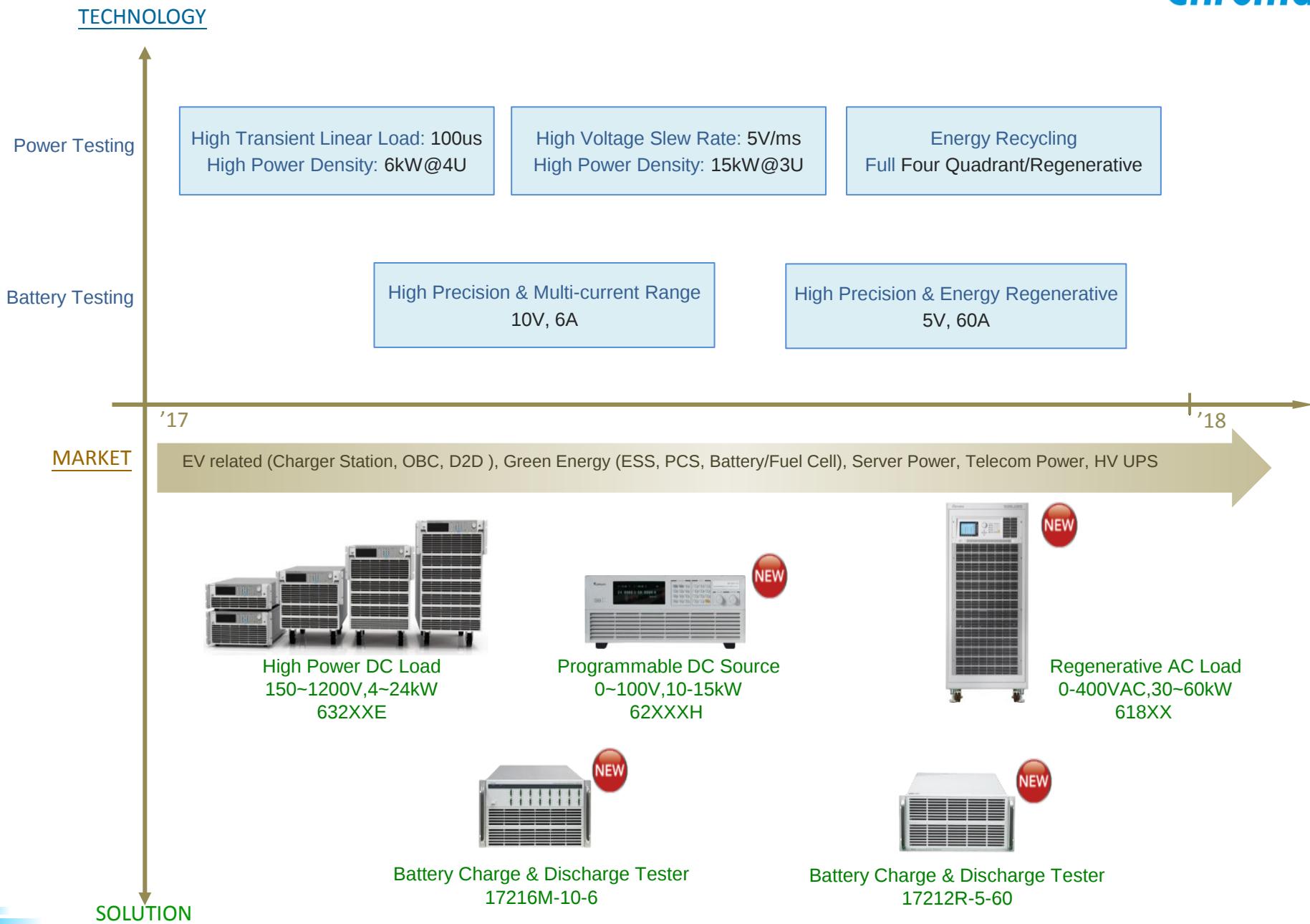
(Unit: Million NTD)

	<u>2018.1Q</u>	<u>%</u>	<u>QoQ</u>	<u>YoY</u>	<u>2017</u>	<u>%</u>
Test Instruments & Automatic Testing System (ATS)	1,046	53%	(8%)	8%	4,253	53%
Semiconductor / Photonics Test Solutions	448	23%	34%	(29%)	2,460	31%
Turnkey Solutions	348	18%	(26%)	241%	928	12%
Service & Others	128	6%	24%	39%	377	4%
Total	1,970	100%	(4%)	10%	8,018	100%

Sales Breakdown by Consolidated Entities

(Unit: Million NTD)	<u>2018.1Q</u>	<u>%</u>	<u>QoQ</u>	<u>YoY</u>	<u>2017</u>	<u>%</u>
Chroma Ate. Inc. included overseas affiliates	2,358	68%	(10%)	13%	9,873	66%
MAS	605	18%	(69%)	656%	2,538	17%
New Material	426	12%	(19%)	(17%)	2,054	14%
Others	77	2%	(35%)	(17%)	436	3%
Consolidated Sales	3,466	100%	(34%)	25%	14,901	100%

- In the first quarter 2018, the growth driver for consolidated sales was coming from Chroma testing equipment business and MAS, presented a growth of 13% and 656% YoY respectively. The turnkey solutions is the key driver for parent company sales growth for first quarter, which presented a strong growth of 241% YoY.
- Continuous growth in year 2018.
 - ✓ EV remains strong. The demand for high power testing to related EV components / modules and battery cell/pack testing equipment continues to increase.
 - ✓ A continuous growth in Semiconductor / photonics testing solution. 3D sensing equipment demand will be extended from last year. The new products launching from ATE system and photonics related testing equipment will also drive the sales growth .
 - ✓ MAS and Turnkey Solutions expected to outperform last year.



TECHNOLOGY

Passive
Comp. Testing

Impedance Measurement
Wide Freq. Range: 30MHz
DC Bias Current : 0-5A / 100KHz-10MHz

Independent 8K Graphics Core
DisplayPort 1.4/ USB-C/ 12G-SDI
8K Pattern switch time<200ms

Automated Test System
Support: Multi-camera or Robot Arm
MTF Repeatability: +/- 1%

Video/FPD Testing

8K x 4K@60Hz

8K x 4K@120Hz

'17

'18

MARKET

Flat Panel Display, Portable & Wearable Device, IoT Electronics

SOLUTION



8K Video Pattern Generator
2238



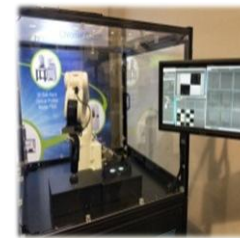
8K FPD Tester
2918

NEW



HF LCR Meter
11050-30M
A110502

NEW



Display Image Quality
Auto Test System
7661A

NEW

TECHNOLOGY

SoC/Photonics
Testing

Multi Function SoC Solution
Up to 750Mbps, 2048ch, 128 DPS,
400Msps AWG and 250Msps Digitizer

VI/PVI Sources
 $\pm 100V$, $\pm 2A$, Floating Ground
Per-Pin Resource

RF Test
IoT Connectivity Test up to 6GHz,
bandwidth 100 MHz

IC Testing Handler

4 AOI Stations
UPH: $\geq 400@100\%$ Yield Rate

Temp. range: $5^{\circ} \sim 80^{\circ} C$
Class 1000; Robot App.

Temp. range: $-75^{\circ} \sim 150^{\circ} C$
>200 Watts at $-40^{\circ} C$

MARKET

CPU/MCU/GPU, ICs, MEMS, PMIC, FPGA, Sensors, OFC



SoC/Analog
Test System
3680



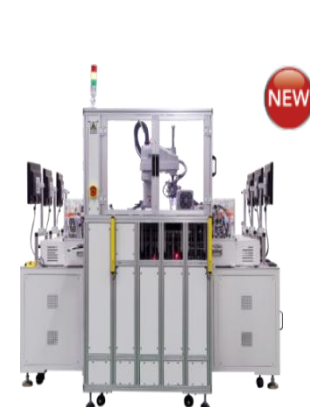
RF IC Tester
5800



SubZero Cobra
Thermal Engine
0310-R



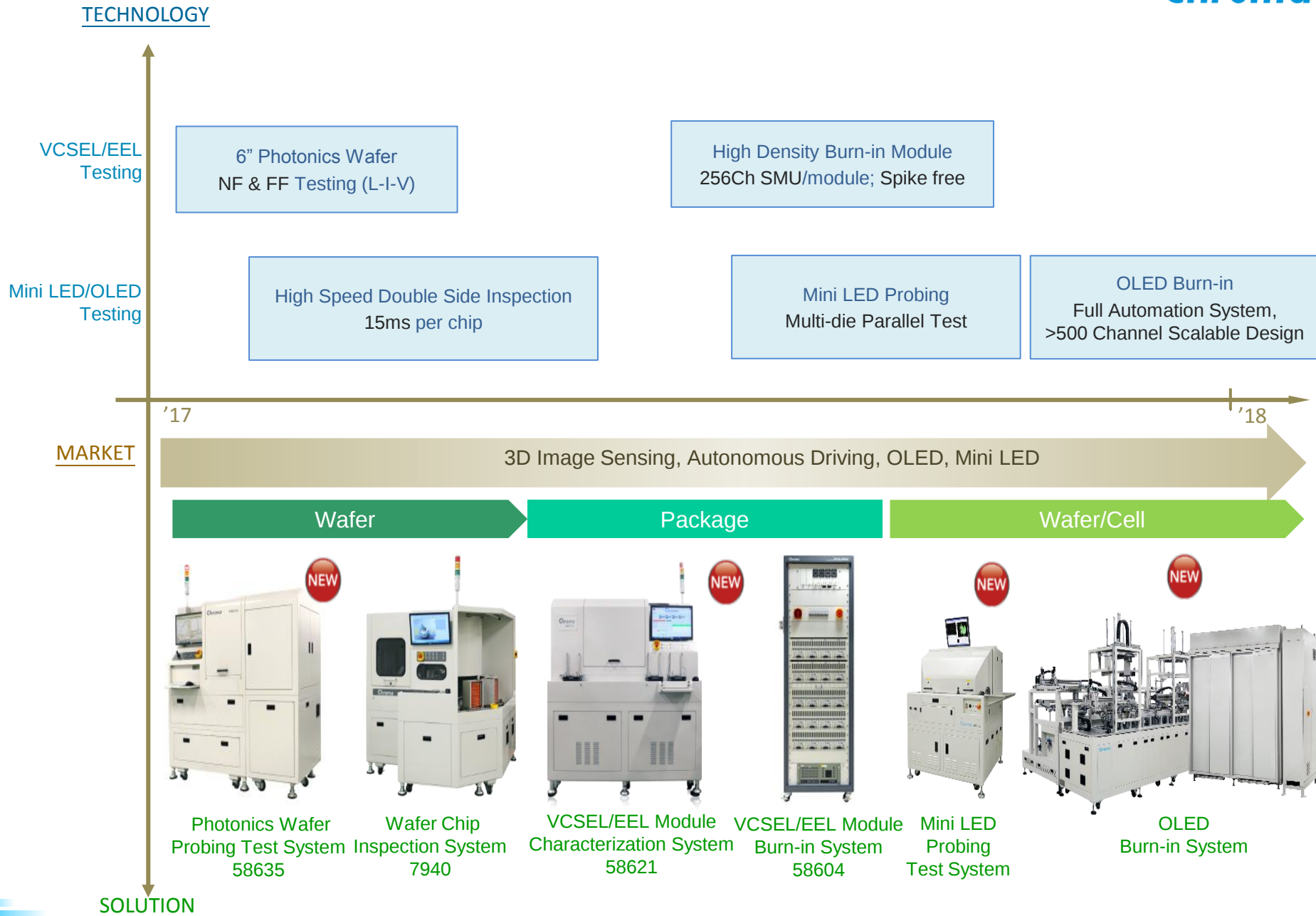
Final Package
AOI System
7710



Optical Fiber DC/RF
Test System
3200L-6

SOLUTION

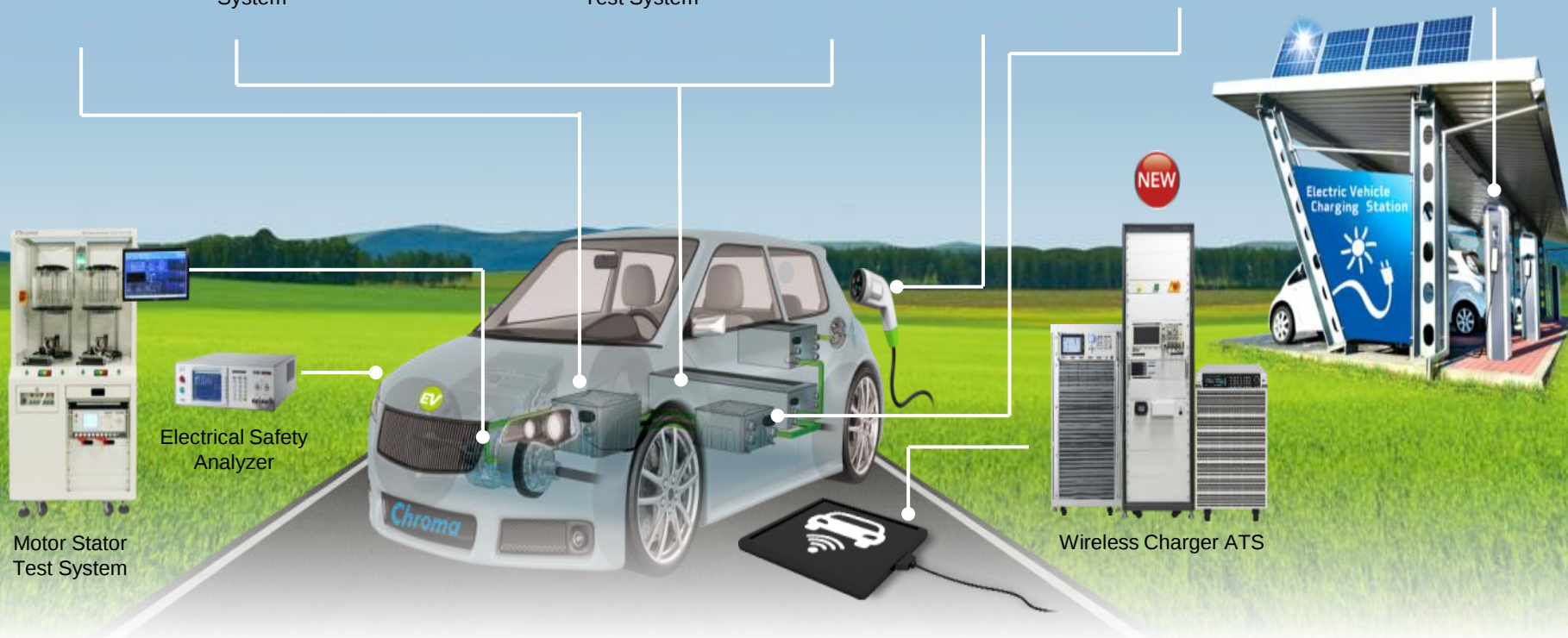
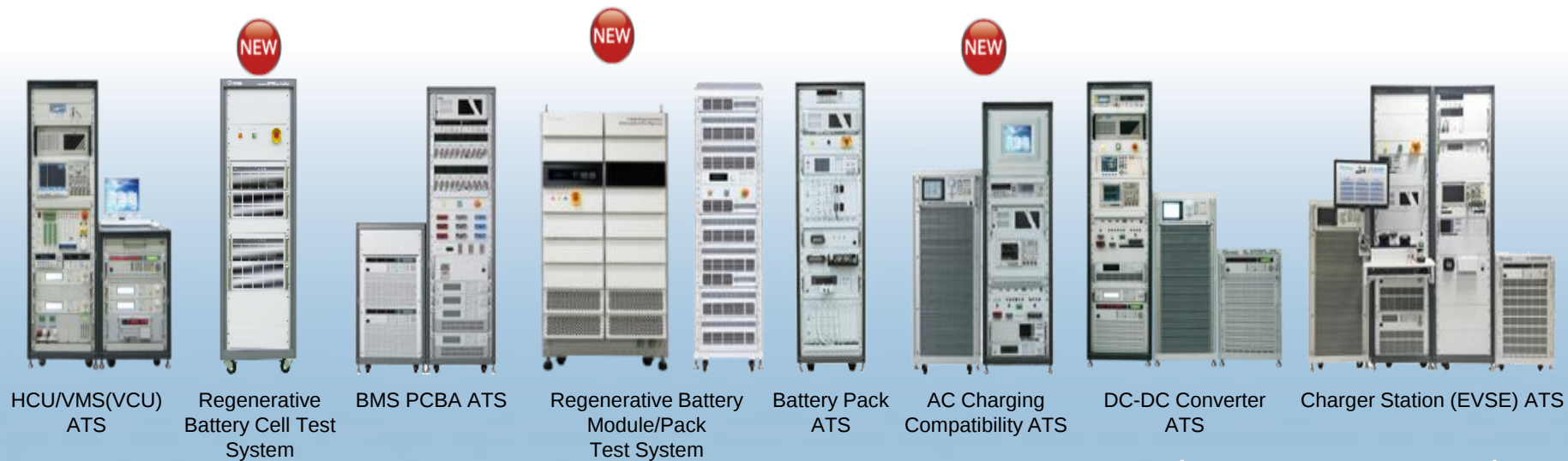
Semiconductor/Photonics Test Solutions



Electric Vehicle Test Solution

Electrical Vehicle Test Solutions

Chroma



Applications

- Battery cell semi-finished product
- Battery cell
- Super capacitor
- Battery management system
- Battery module
- Battery pack



Passive Component & Safety Test Solutions for Automobile

Chroma



Investment



太奇雲端
Touch Cloud

Our Marketing Position

We are an Artificial Intelligence solution and application company, creating analytics value for industry 4.0 and surveillance using deep learning technology.



TC Microscope



Improve the defect identification and detection of AOI (Automated Optical Inspection).
Provide the defect classification capability with domain knowledge learnt by AI.

TC Telescope



Video and live streaming analytics in real-time, detect abnormal objects and activities.

To offer nanoparticle monitoring technologies for processing liquids used in semiconductor industry.

SuperSizer,
In-Line Nanoparticle Sizing System



A new generation nanoparticle monitoring system accurately detects the size and quantity of particles above 5nm, allowing manufacturers to take necessary measures to improve the process according to the monitored results.

- ✓ Distinguishing particle size ranging from 5 nm to 1,000 nm
- ✓ Concentration up to 10^{14} /cm³
- ✓ Advanced aerosol particle measurement technologies
- ✓ Other application industry: electronics, optoelectronics, and biomedical materials

Keep going beyond



Thank
You !