



HSBC 2nd Annual Asia Investor Forum London 9~10 June 2014

Sino-American Silicon Products Inc.

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SAS Company Profile



Established : 1981

Paid-in Capital : NTD 5.2 B

Employees : about 3,500 (worldwide)

• Headquarter : Hsinchu Science Park, Taiwan R.O.C.

Products : semiconductor wafer(3"~12"),

solar wafer / cell

Revenue :

2009 NTD 11.9 B

2010 NTD 22.5 B

2011 NTD 17.5 B

2012 NTD 18.4 B

2013 NTD 22.2 B

2014 Jan~ May 11.1 B (32.5% †, YoY)



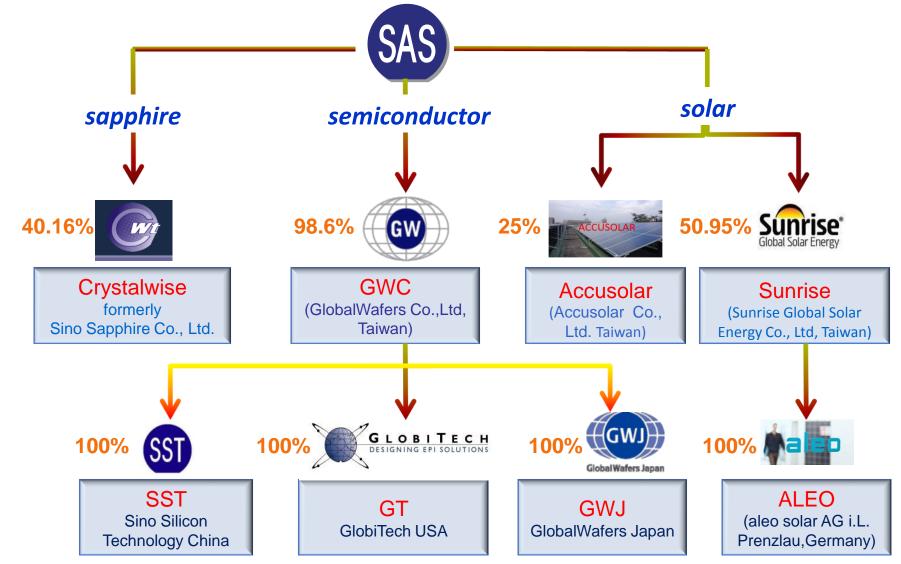




1981	Established with focus on semiconductor wafer manufacturing
1999	China subsidiary, SST, established
2000	First in Taiwan to enter solar ingot/ wafer production; mass production of semiconductor polished wafer
2001	IPO on Tawian's OTC market (Ticker # 5483 TT)
2007	Optoelectronics Business (Sapphire Substrate) Unit established
2008	Acquisition of GlobiTech Inc. as US subsidiary
2011	Operation allocation: Solar business to SAS Semiconductor business to GlobalWafers Sapphire business to Sino Sapphire
2012	GlobalWafers acquired semiconductor sector of Covalent Materials as Japan subsidiary GWJ
2013	Subsidiary Sino Sapphire merged with Crystalwise Technology
	Cash acquisition of Sinosolar, a major shareholder of Sunrise Global, increases SAS' direct shareholding in Sunrise Global Solar Energy to 50.95%
2014	Aim to complete acquisition of Sunrise Global Solar Energy

SAS Group Organization Structure





Global Manufacturing Sites



4 countries/ 10 Fabs





SAS Chunan Factory 1



SAS Chunan Factory 2



Sunrise Factory

Semiconductor



USA TX (GTI)



Hsinchu Factory (SAS Headquarter)



Kunshan Factory (SST)



GWJ(Niigata)



GWJ (Oguni)



GWJ Tokuyama)



GWJ(Sekikawa)

SAS Consolidated Financial Figures



unit: NTD M	<u>2013</u>	%	<u>2014.Q1</u>	%
Revenue	22,215	100	6,348	100
Gross Profit	2,439	11	1,007	16
Operation Income	629	3	446	7
EBITDA	4,058		1,165	
PBT	429	2	573	9
Equity Value	18,298	52	18,937	52
Total Debt & Debt ratio	19,088	48	19,809	48
Market cap (as of e/Dec '13) (as of e/May '14)	26,523		29,819	
ROE (%)	1.74		2.43	7

SAS Group Semiconductor Sector





GlobalWafers Co., Ltd.

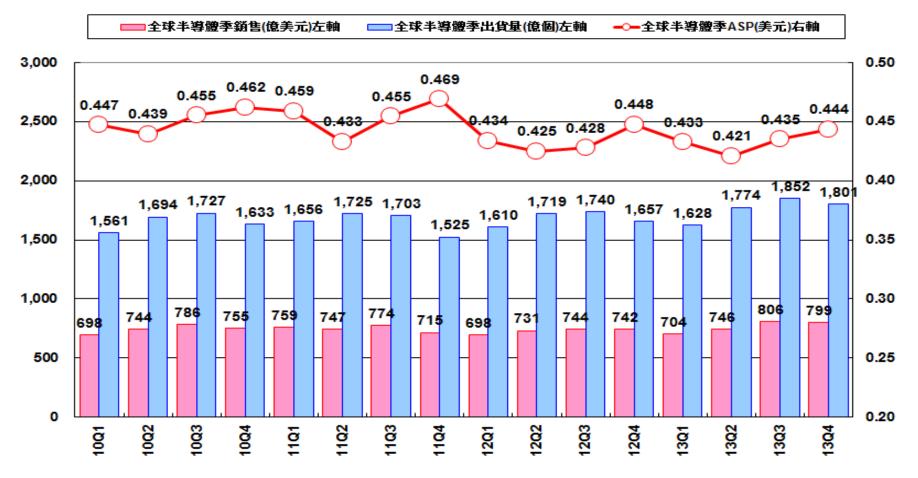
GWC Consolidated Financial Figures SAS



unit: NTD M	<u>2013</u>	%	<u>2014.Q1</u>	%
Revenue	15,570	100	3,703	100
Gross Profit	3,663	24	1,023	28
Operation Income	2,194	14	583	16
EBITDA	4,495		976	
PBT	2,206	14	633	17
Equity Value	13,135	63	13,935	63
Total Debt & Debt ratio	7,872	37	8,259	37
ROE(%)	14.66		3.98	

Global Semiconductor Market Analysis





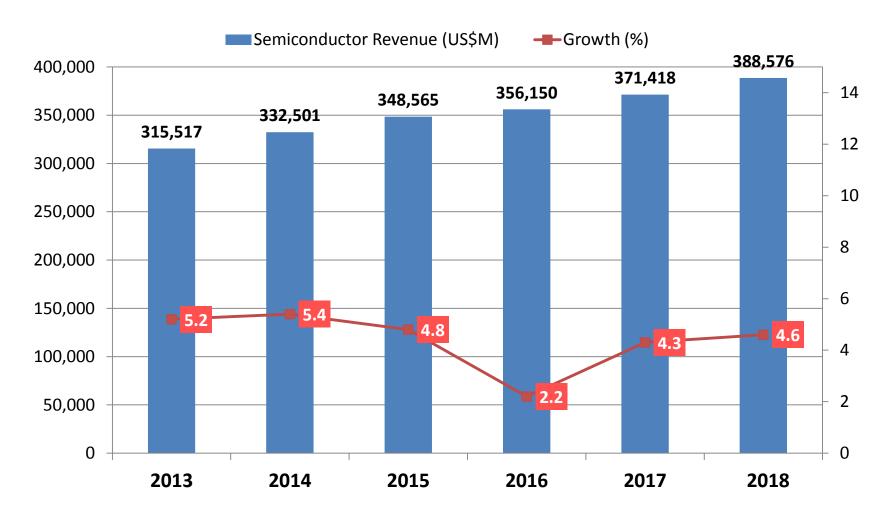
Source: WSTS, 工研院IEK, TSIA 2014-03

> 2013 global semiconductor ic sales revenue : **US\$ 305.6B**, up 4.8% YoY

▶ US: \$61.5B/13.1% ↑ JPN: \$34.8B/15.2% ↓ EU: \$34.9B/5.2% ↑ ASIA: \$174.4B/7% ↑

Global Semiconductor Revenue & Growth 2013~2018



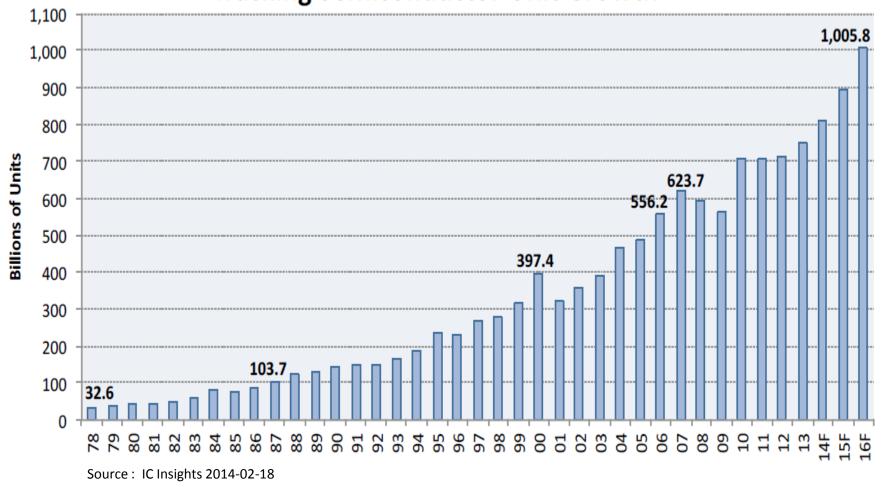


data source: Gartner 2014-04-24

Global Semiconductor Market Forecasts



Tracking Semiconductor Unit Growth



> 2016 : Semiconductor Units surpassing ONE TRILLION devices shipping

≥ 2014:8% ↑ 2015:11% ↑ 2016:12% ↑

GWC Global Tier -1 Client base



<u>Taiwan</u> <u>Japan</u> <u>US/ Europe</u>







SAS Group Solar Business Sector





Sino American Silicon Products Inc.

Strategic Investment in Solar Value Chain















Mono Crystalline Wafer



Mono Crystalline Wafer



High Efficiency Multi Crystalline Wafer



Location: Taiwan

Ownership: 50.95% => 100%

Main Product: Ultra High Efficiency Mono Cell

Capacity: 350MW



Location: Taiwan Ownership: 7.93%

Main Product: Multi & Mono Cell / Module / System

Capacity: 880MW =>1,040MW (Sep '14)

Location: Taiwan Ownership: 25%

Main Product: Solar Systems

Solar system examples: 72 Solar Systems installed in Taiwan

Accusolar





Briefing on Sunrise Global Solar Energy (Solar Cell)

Sunrise Company Profile

SAS

■Established: 2007

■Paid-in Capital: NTD \$2.5 billion

■Employees: 431

■ Headquarters: Lize Industry Park, Yilan County

■Revenue: 2012 NTD 2.33 B

2013 NTD 3.35 B

2014 Jan ~ May NTD 1.8 B



2007.08	Established
2008.12	5-year R&D program with The University of New South Wales,
	cell plant and facility construction
2011.01	IPO (Ticker # 5217 TT)
2011.04	Reached peak efficiency of 19.2% in standard volume production (mass production)
2011.12	Annual capacity of 350MW
2012.06	P-type cell reached peak efficiency of 20.2% (Mass Production)
2013.06	CELCO cell reached peak efficiency of 20.6%
2014.04	CELCO cell reached peak efficiency of 20.9%
2014.05	Acquired ALEO module manufacturer in Germany

Sino-American Silicon Products Inc.

Sunrise Financial Figures



Unit: NTD M

2013

<u>2014</u> <u>Jan~ May</u>

Revenue	3,349	1,804
Gross Prof	fit 302	-
GPM	9.0%	_
PAT	164	_
EPS	0.65	_
Debt Ratio	17%	-
Cash & Cash E	Equivalent 1,574	_

ALEO Solar AG



■Established: 2001

■Location : Prenzlau, Germany

(120km from Berlin, 75mins by car)

■Capacity: 280MW

■Product : High Efficiency Solar Module





Crystalwise Investment Status



- Initial Investment date: 2013. 01. 01
 (merger between Sino Sapphire & Crystalwise)
- Main products : Sapphire Wafer
- Holding Shares (as of e/May ' 14): 82,848,244
- Holding Shares Ratio (as of e/May ' 14): 40.16%
- SAS Vice Chairman, Mr. Tom Yao to serve as the Chairman & CEO of Crystalwise.

Crystalwise Technology Inc.



Quality · Speed · Service · Innovation



Crystalwise Technology Inc.

1F, No.16, Creation 1st Rd., Hsinchu SciencePark, Hsinchu, Taiwan 30077 R.O.C.

TEL: 886-3-577-0658

http://www.crystalwise.com.tw

http://www.crystalwise.com.tw

Company Profile



Founded: 02 NOV. 2000

Capital: 1,686,250,290 NTD (US\$57.47M)

Employees: 700 in Taiwan; 150 in China (YHTM)

Products: 2" \ 4" \ 6" Single-Side Polished Sapphire Substrate

2" \ 4" \ 6" Pattern Sapphire Substrate

Sapphire Optical Windows, Sapphire Carriers

4" LiTaO₃ \ LiNbO₃ Crystal & Substrate

Metallized Ceramic Substrates, Metallized Sapphire Substrates

Technical Materials

Company History



- 2000. 11 Founded with Capital NTD 20 Million.
 - 2001. 02 Established LN/LT waferring development in ITRI incubation center
 - 06 Oxide-compound substrate qualified by customers
- 2002. 06 Approved Ministry Economic of Affairs Small Business Innovation Research Program (SBIR) Sapphire Wafer Surface Nano-machining Process Technology Research" grants program
 - 07 Moved to Hsinchu Industrial Park
- 2007. 09 Developed Pattern Sapphire Substrate
 - 2009. 04 Moved in Hsinchu Science Park
 - 07 Approved SBIR High-power GaN-LED with Lithium Aluminum Oxide Substrate development plan
 - 10 Established YHTM (Subsidiary in Shangdong, China)
- 2010. 05 Invested SSKT (Lithium Tantalate Crystal in Shanghai, China)
- 2011. 05 Listed on Taiwan OTC Stock Trading: 4944

85KG Sapphire Crysrtal Growth at YHTM





- YHTM has succeeded the 85Kg sapphire crystal growth with typical size of diameter of 280 mm x 350 mm which can make 2 to 8 inches ingots for LED epitaxy substrates.
- KY sapphire crystal has advantages of lower EPD, lower internal stress and higher perfection of crystal lattice than the other growth methods.

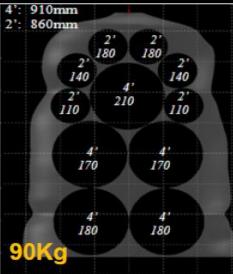
90-120kg-KY Pulling Technology Development SAS)

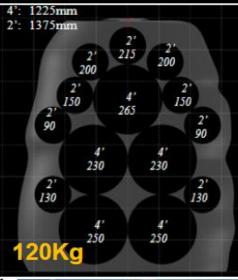


KY Technology Development at YHTM: Upgrade to 90Kg-120Kg in Q1/2015









Technique Development of Ky-sapphire in YHTM

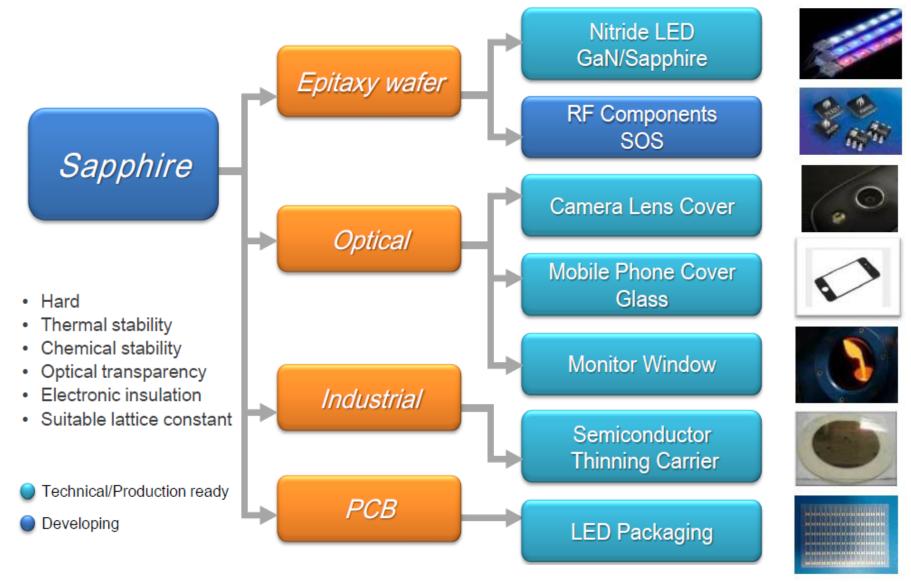
	Presently		Q2/2014	Q1/2015 120Kg	
Spec.	65Kg 85Kg		90Kg		
4" (mm)	616	810	910	1225	
2" (mm)	1029	1092	860	1375	
total(mm)	3493	4332	4500	6275	
Cycle time	16 days	17 days	18 days	20 days	



25

Sapphire Applications of CWT





Taiwan Headquarters Plan



- New HQ will be constructed at Chunan in Q4, 2014.
- Total footprint is around 28,561 m².







主要入口意象透視圖

27

Capacity Plan of 2014

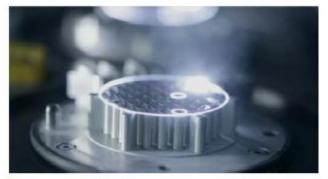


SITE	Crystal	P/W (TIE)	PSS (TIE)	As-Cut (4")	LASER (pcs)
Hsinchu I			150K/M		
Hsinchu II		400K/M			
Chunan		250K/M	250K/M		600K/M
YHTM I		150K/M			
2014		7	7		
HQ		500K/M	400K/M		1,000K/M
YHTM II	TBD	300K/M	100K/M		
SSKT	16 tons per ann.			30K/M	

Camera Sapphire Glass Lens



- Apple iPhone5 uses sapphire camera lens cover, other OEM since H2 2013.
- Apple iPhone5S features fingerprint reader with a sapphire window in the home button.





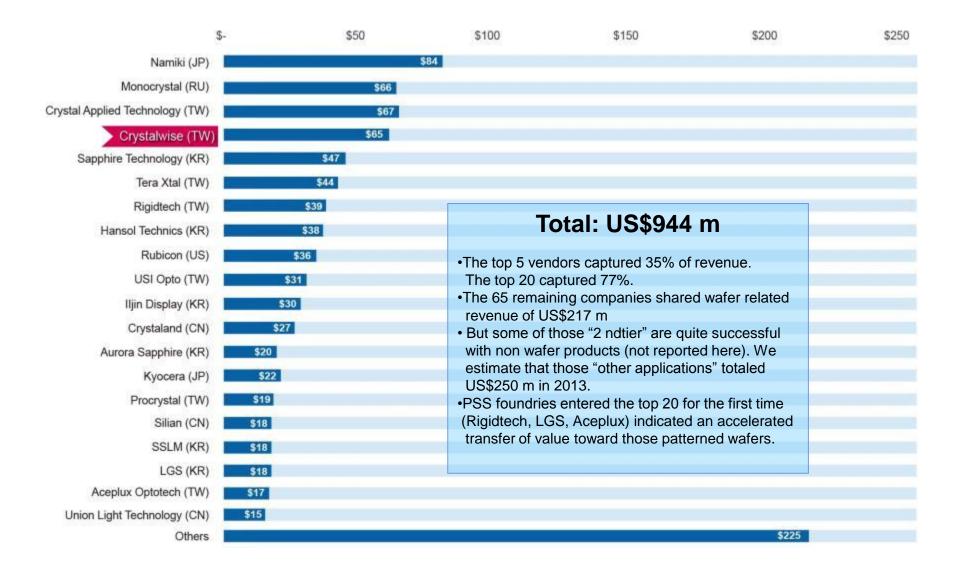


iPhone5 camera lens cover (source: Apple)



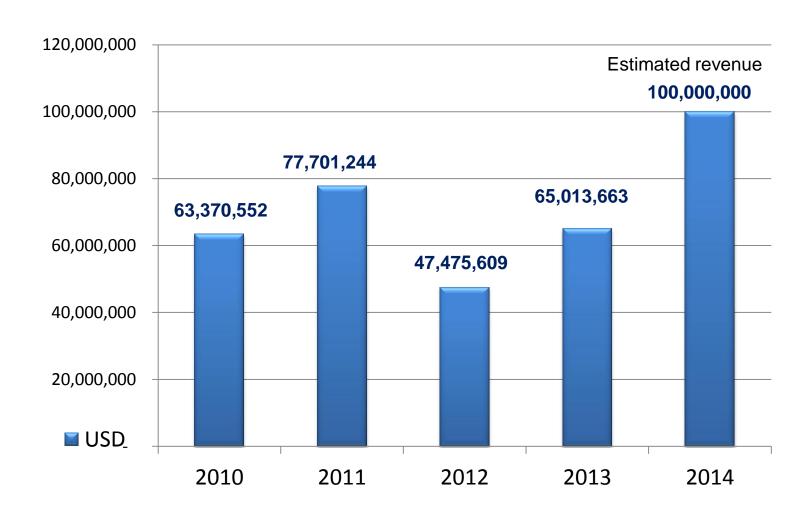
Sapphire Supplier Revenue in 2013





SA

CWT Sapphire for LED Revenue 2010 - 2014



SAS & GWC Dividend policy



	<u>Year</u>	EPS	Dividend
S	2010	10.5	NTD 5.5
A	2011	1.02	NTD 0.85
S	2012	(4.9)	-
	2013	0.57	NTD 1.0

C	<u>Year</u>	EPS	Dividend
G W	2011	-	spin off
C	2012	3.44	NTD 2.8
	2013	6.22	NTD 5.5

Solar Industry Outlook



- Global solar system installation to reach 45 ~ 50 GW in 2014.
- Given strong recovery of solar market worldwide this year,
 SAS is expecting good growth on shipment quantity in 2014.
- SAS will complete the M&A of Sunrise, known as high efficiency mono cell production and will increase the ownership of Accusolar, a solar system EPC company in TWN.
 Via vertical integration in this field, SAS is able to provide better solutions of solar products to customers.

Semiconductor Industry Outlook



- SIA announced Q1 global semiconductor sales US\$78.47B as highest ever record.
- Given the favorable tendency of the semiconductor market,
 GWC will keep expanding production capacities to meet customers' strong demand.
- For GWC, Communication and Automotive will be the major application fields demonstrating strong growth.







Q&A