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SPIROX

Spirox Corporation (Stock Code :3055) **2023 Third Quarter Earnings Conference**

Spokesperson Noelle Ni

21 Dec 2023

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Agenda

- Company Profile
- Financial Review
- 2023.4Q & 2024 Outlook
- Q&A



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SPIROX

Spirox Group

Professional Semiconductor Equipment Provider

Delivering Smarter Solutions

Overview



Hsinchu, Taiwan | HQ



- Own Products
- Semiconductor Equipment Distribution
- Board Repair Service

Subsidiary

Jetek Technology Corp.

- System Integration Services
- Customized Test Solutions

Southport Corporation

- Advanced Optics Technologies

Spirox Technology Shanghai

- Semiconductor Equipment Distribution
- Board Repair Service

Spirox Group

- Established in 1987
- TWSE: 3055, Listed in 2002
- Capital: 38.3M USD
- Market Cap: 154M USD (as of 2023/12/13)
- Employees: 180 (as of 2023)
- Business Coverage: Semiconductor Test/Package/Inspection Equipment

Spirox Products

- SP2500 SoC Test System
- MA6503D Micro Inspection System
- SP3055A Non-destructive Inspection System
- SP3055S WBG Materials Inspection and Analysis System

Distribution Products



Core Competencies



Business Philosophy

Build a customer-oriented culture and set win-win goals with customers and partners.



Industry Experience

With over 30 years of experience in semiconductor industry, Spirox has a strong and stable customer base.



Professional Team

• Years of service:

140 employees with 5Y+
103 employees with 10Y+
82 employees with 15Y+
55 employees with 20Y+

• Education:

138 employees have a college degree or higher (77%)
40 employees have a master's degree (22%)
2 employees have a PhD (1%)



R&D Capability

Test solution development and Investment on own-product



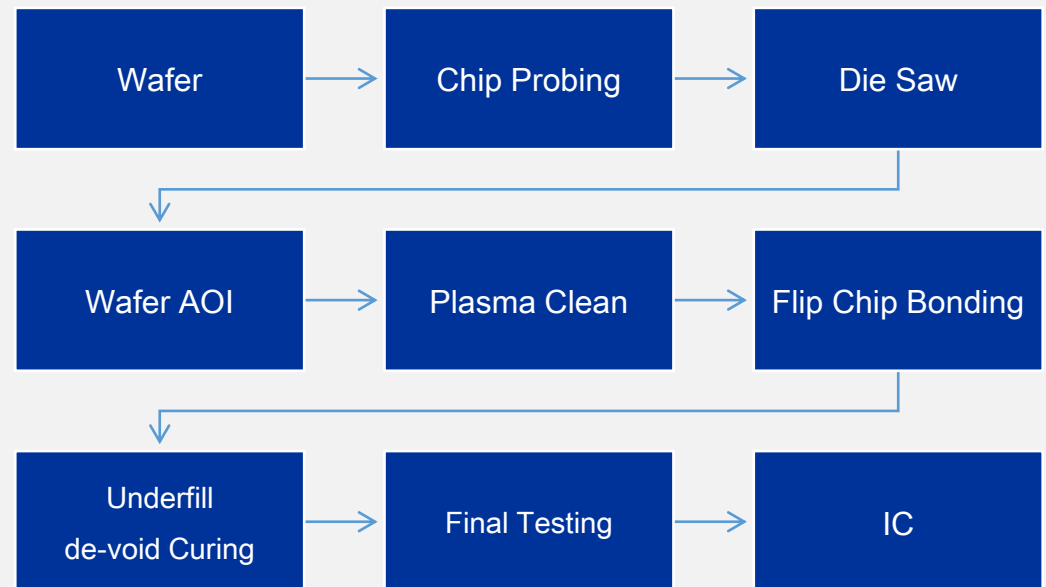
Strong FIN

Strong & health finance status



Spirox solution can meet the demands of the front-end and back-end semiconductor manufacturing processes!

- IC Test Solutions
- IC Advanced Package Solutions
- Compound Semiconductor Solutions
- IC Process & Quality Assurance Solutions
- Industry 4.0 Solutions
- Equipment Board Repair



Compound Semiconductor Solutions



Southport Corporation
南方科技股份有限公司



JadeSiC-NK

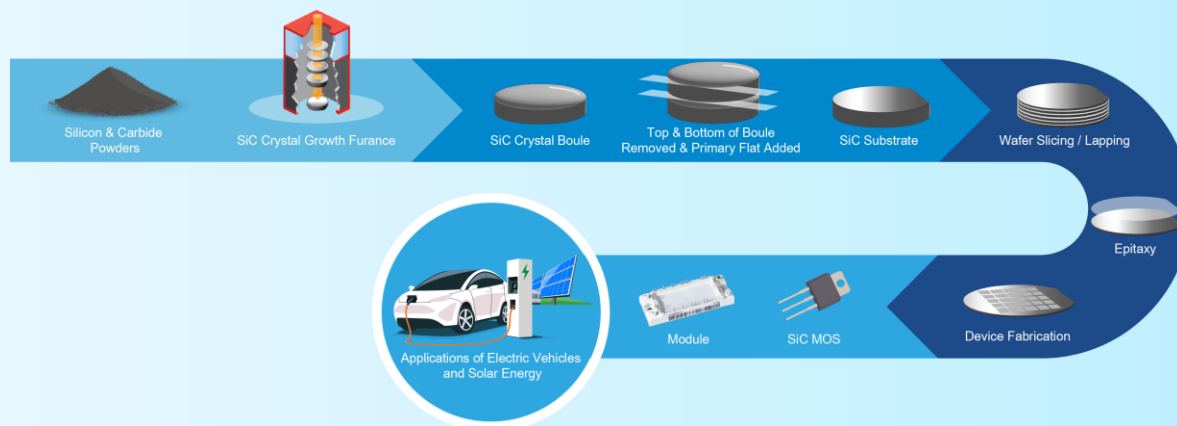
Non-Destructive Inspection System

- Advanced **NLO (non-linear optics)** technology
- **Non-destructive** inspection technology
- **Killer defects** (BPD, TED, TSD, MicroPipe, SF) inspection **on the surface** and **in the substrate**
- **MicroArea 3D scan** function available

JadeSA-WBG

3D Stress Inspection & Analysis System

- Wafer scan **on surface** and **in depth** for stress distribution
- Whole wafer scan at **specific depth** with stress mapping
- Whole wafer **3D polytype** analysis
- **MicroArea 3D stress mapping / polytype** analysis



Assembly and Test + Quality Assurance Solutions

Chip Probing

IC Package

IC Final Testing

IC Process & Quality Assurance



ATE



ShibaSoku



Osai
automation systems



Handler



Prober



Chuck

turbodynamics



Test Interface



MicroLED Inspection

TORAY

Toray Engineering Co., Ltd.



TCB Bonder



Blade Dicing Saw



Vacuum Reflow



Reflow system



De-void system



Plasma



Heat Sink
Laminator



Measurement



Automatic Debond
Warpage Adjustment

HAMAMATSU
PHOTON IS OUR BUSINESS



EFA

TESCAN
PERFORMANCE IN MICROSCOPE



PFA



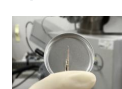
MA

HANWA



ESD

埃爾思科技
ALES TECH



Nanoprobes

INTEK PLUS
Integrated Measurement System



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SPIROX



AOI(PKG)

蔚華科技
SPIROX



TORAY
TASMIT, Inc.



AOI(Wafer)

蔚華科技
SPIROX



Test Solution



SOC



RF / SOC

ShibaSoku®



IGBT / PIM / IPM



Handler



Osai
automation systems



Prober



Chuck



Test Interface



MicroLED Inspection System



ATE & Other Equipment
Board Repair Service



Advanced Package Solutions

Bonding

TORAY

Toray Engineering Co.,Ltd.



Thermal Compression Bonding (TCB)

Process



Blade Dicing Saw



eWLB wafer de-bonding
Warpage Adjustment



Vacuum Reflow
System



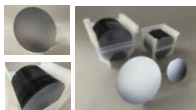
Reflow system

Metrology



Multi function
measurement
system

Material



Bare Si Wafer

Automatic



Mobile Robot



De-void system



Plasma



Heat Sink Laminator

Process & Quality Assurance Solutions

High Reliability

Litho

Etch

CMP

OQA

Bump

CP

Sawn

PKG

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EFA

- Front side/Back side EFA
- Static/Dyanmic EFA
- Magnetic Optical Current Imaging

TESCAN
PERFORMANCE IN NANOSPACE



PFA

- SEM
- FIB/Plasma FIB
- MicroCT



MA

- Nanometer Materials
- SiC/GaN 3D Defect Analysis
- Micro LED Inspection
- Perovskite Inspection

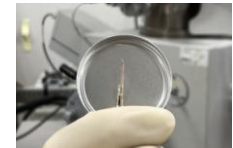
HANWA



ESD

- HBM/CDM/TLP ESD
- Lactch Up
- Wafer Level ESD

埃爾思科技
ALES TECH
Atomic Level Emission Sources



Nanoprobes

- Can meet the demands for failure analysis in 3 nm process

Process & Quality Assurance Solutions

High Reliability

Litho

Etch

CMP

OQA

Bump

CP

Sawn

PKG

TORAY
TASMIT, Inc.



AOI (Wafer)

- Whole Wafer/Sawn Wafer
- Thin Wafer
- Color Camera Inspection

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AOI (Wafer)

- Replace QC visual inspection on surface defects
- Auto-storing Defects Image
- Position Coordinate Records

INTEK-PLUS
Integrated Measurement System



AOI (PKG)

- Package inspection with Auto Tape & Reel / 6S
- High Speed In Tray / Pick & Place Solution

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AOI (PKG)

- Auto-pitch adjustment of sealing blade for efficient operation
- Post-sealing inspection ensures high quality service
- Friendly user-interface

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AOI (PKG)

- Replace manual IQC incoming inspection
- Replace manual FT first tray inspection and in-process quality control (IPQC)
- Provide tray maps for data comparison and tracking

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Delivering Smarter Solutions™

Customization Test Solutions

✓ System Integration	Flexibility: Fast function expansion Friendly: One Human-Computer Interface
✓ Test Module Board Design	Develop cost-effective and precise measure module to fulfill customer demands
✓ Software Development	Customized developing environment and analysis tools for more effective engineering process
✓ Highly Customized	Close team work with customers to achieve win-win goal



Bio-Sensor



CIS



MEMS (MIC,TPMS)

Achievements

“For over 30 years, Spirox has contributed to the success of semiconductor industries through cost reduction, improved efficiency, and offering the most advanced range of technology equipment in the field.

Spirox will continue to uphold our commitment to seek out and deliver smarter solutions that provide a competitive advantage for both our customers and partners!

12K+

Total Installed

4K+

Training Attendance

1.7K+

Customers Served

500+

Vendor Codes

Spirox always delivers smarter solutions!



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Financial Review

Statements of Consolidated Income (YoY & QoQ)

SPIROX CORPORATION and Subsidiaries

Summary of Consolidated Statements of Income (In NT\$ Millions)

	2022/ Q3	2022/ Q4	2023/ Q1	2023/ Q2	2023/ Q3	2022/ ~Q3	2023/ ~Q3
Net Revenue	588	396	365	358	312	1,519	1,035
YoY	(28)	(445)	(80)	(128)	(276)	(287)	(484)
YoY%	-4.5%	-52.9%	-18.0%	-26.3%	-47.0%	-15.9%	-31.9%
Gross Profit	47	(1)	25	73	69	173	167
YoY	(4)	(112)	(38)	11	22	(20)	(5)
YoY%	-8.3%	-100.9%	-60.3%	17.3%	46.5%	-10.5%	-3.2%
GP Margin %	8.0%	-0.3%	6.9%	20.5%	22.1%	11.4%	16.2%
Operating Expenses	149	156	108	93	121	434	322
YoY	(40)	21	(36)	(48)	(28)	(92)	(112)
YoY%	-21.1%	15.6%	-25.3%	-34.2%	-18.7%	-17.5%	-25.9%
Operating Income (loss)	(102)	(157)	(82)	(19)	(52)	(259)	(154)
YoY	36	(134)	(2)	57	50	72	105
YoY%	-26.1%	-581.5%	-2.0%	74.6%	48.7%	21.6%	40.5%
Op. Income(loss) margin%	-17.3%	-39.7%	-22.5%	-5.4%	-16.8%	-17.1%	-14.9%
Non-Operating Revenue and Expenses	231	540	208	(25)	(74)	193	109
YoY	222	553	222	(1)	(305)	176	(84)
YoY%	2484.5%	4077.8%	1627.9%	-3.3%	-132.0%	988.2%	-43.4%
as % of revenue	39.3%	136.5%	57.0%	-6.9%	-23.7%	12.7%	10.6%
Net Income (loss)	110	333	103	(49)	(118)	(77)	(63)
YoY	233	385	199	43	(228)	237	13
YoY%	190.1%	751.0%	207.7%	46.7%	-207.2%	75.6%	17.4%
Net Income (loss) margin%	18.7%	84.3%	28.2%	-13.6%	-37.8%	-17.7%	-19.7%
Net Income (loss) attributable to :							
Owners of the Parent	115	293	103	(49)	(118)	(53)	(63)
Non-controlling interests	(4)	41	(0)	0	0	(24)	(0)
EPS (NT Dollars)	1.02	3.88	0.91	(0.43)	(1.03)	(0.47)	(0.55)

note: The profit and loss of the continued business and the discounted operation are shown separately

Consolidated Balance Sheet

SPIROX CORPORATION and Subsidiaries

Summary of Consolidated Balance Sheet

(In NT\$ Millions)

	2021.12.31	2022.9.30	2022.12.31	2023.09.30	change
Cash and time deposits(AC)	1,247	1,321	1,226	1,424	198
Accounts Receivable,net	873	719	506	325	(181)
Other receivable, net	8	8	667	87	(580)
Inventories	172	197	172	49	(123)
Disposal groups held for sale	1,910	27	0	0	0
Other current assets	180	131	114	94	(20)
Financial Assets(except AC)	502	662	698	756	58
Property, plant and equipment	1,425	1,382	623	599	(23)
Non-current assets	89	73	42	48	6
Total Assets	6,407	4,521	4,048	3,383	(665)
Borrowings	1,134	828	476	290	(187)
Contract Liabilities	83	103	95	113	18
Account payable	730	667	486	289	(197)
Disposal groups held for sale	1,641	0	0	0	0
Other liabilities	177	134	154	171	17
Total Liabilities	3,766	1,732	1,211	862	(349)
Common Stock	1,187	1,187	1,187	1,187	0
Additional Paid-In Capital	467	832	618	435	(183)
Retained Earnings	1,099	1,047	1,335	1,155	(180)
Other Equity+Treasury Stock	(435)	(375)	(360)	(257)	104
Minority Interest	323	98	57	0	(57)
Total equity	2,641	2,789	2,837	2,521	(317)

transferred
into
light
assets

Consolidated Cash Flow Highlights & Financial Ratio

Consolidated Statements of Cash Flows Summary

(In NT\$ Millions)

item	2021	2022/ ~Q3	2022	2023/ ~Q3
Net cash generated from (used in) operating activities	(117)	308	253	117
Net cash used in investing activities	(119)	76	(245)	552
Net cash generated from financing activities	358	(100)	64	(481)
Cash and cash equivalents at the end of the year	1,042	1,265	1,103	1,327

held financial structure and debt solvency well

Adjusting operating performance

Financial Analysis Summary

item	2021	2022/ ~Q3	2022	2023/ ~Q3
Account Receivable turnover days	✗ 194	✓ 146	✓ 135	✓ 118
Inventory turnover days	✓ 48	✗ 74	✓ 51	✗ 65
Debts ratio%	✓ 58.78%	✓ 38.32%	✓ 29.91%	✓ 25.48%
Current ratio%	✓ 141.48%	✓ 197.95%	✓ 402.91%	✓ 432.09%
ROA%	● -4.64%	● -0.27%	● 5.36%	● -1.53%
ROE%	● -14.58%	● -2.82%	● 9.37%	● -2.36%



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2023.4Q & 2024 Outlook

2023.4Q & 2024 Outlook: Semiconductor Equipment Distribution

- Due to the global downturn in the semiconductor market and the slow pace of inventory digestion, customers are cautious in terms of pulling orders and investments. The booking status is lower than expected. However, influenced by the intensified restrictions on the Chinese semiconductor market by the United States and Japan, some customers accelerated their order placement at the end of the year, leading to the continuous shipment of equipment. The revenue from semiconductor equipment distribution in 2023 is expected to decrease by approximately 16% compared to 2022.
- Rebalance product portfolio and market strategy:

Distribution: focus on low US-tech involved products and transfer to buy-and-sell mode to increase gross profit, including

- TESCAN(CZECH) : FIB SEM and Microscope
- Wafer Prober (KOREA) : for wafer testing
- Hamamatsu (JAPAN) : for wafer electrical failure analysis
- Toray TCB(JAPAN) : for high-level stacked package

2023.4Q & 2024 Outlook: Spirox Own-brand Equipment

- Rebalance product portfolio and market strategy:

Spirox Own-brand products: best way to increase gross profit rate

1. Expansion of product portfolio through **the** acquisition of Southport

- JadeSiC-NK: Industry-first Non-Destructive SiC Defect Inspection System. It employs advanced non-linear optical technology for whole wafer scanning of SiC substrates to identifying killer defects within the substrate, and can help customers saving significant costs and increasing output. In negotiation with several customers.
- JadeSA-WBG: 3D Stress Inspection and Analysis System for WBG Materials. It can effectively reflect the intrinsic property of WBG materials, and suitable for monitor the stress distribution and polytype uniformity of SiC substrate, homogeneous and heterogeneous epi wafer, and device process review . In negotiation with several customers.

2. Other Own-brand products:

- AOI Equipment: MA6503D、TR1000、LS1000
- ATE : SP2500

2023.4Q & 2024 Outlook: Subsidiaries & Investment

- Jetek Technology (Taiwan):
 - Keep developing CIS and Silicon Photonics solution. Silicon Photonics solutions has shipped in 2nd half of 2023, and CIS solution is expected to generate revenue and profit in 2024.
- Southport Corporation:
 - Participated in Southport 's cash capital increase to complete 1st phase investment to obtain about 51% of the equity of Southport (Approximately 3.09million shares)
 - 2nd phase investment will be conducted after Southport completes the performance goals set by Spirox. Spirox is expected to obtain a total of 95% of the equity of Southport for two phase investment.
- UnionSemicon (Hefei):
 - Holding 2.04% shares (17 million shares)
 - Trading restrictions was released on 18th Dec 2023. Will sell our shares based on market conditions and stock prices.



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Thank You !