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Spirox Group

Professional Semiconductor Equipment Provider

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Agenda

- Core Technology: SpiroxLTS®
- Patent and Certificate
- Financial Review
- Q&A

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Core Technology: SpiroxLTS®

SPIROX LTS® Technical Principles

SpiroxLTS® (Spirox *Laser Tomography Scan)* utilizes near-infrared laser light focused on the sample to generate non-linear optical signals—referred to as K1, K2, and K3 signals—for inspection purposes. The **K1 signal**, a visible light signal, is used to detect interfaces between materials with different refractive indices. The **K2 signal**, a near-infrared light signal, is used to observe the surface morphology of the sample. The **K3 signal**, also a visible light signal, is used to detect lattice asymmetry within the material. The scanning process sequentially scans the focused point across the sample to obtain image information from a single layer. By stacking the image data from each layer, a 3D image is reconstructed. This principle is similar to that of computed tomography (CT), hence the name Laser Tomography Scan.

Excitation Light Source：Near-Infrared Laser Light			
Signal	**K1** Signal (Visible Light)	**K2** Signal (Near-Infrared Light)	**K3** Signal (Visible Light)
Application	Interfaces Between Different Materials	Surface Morphology	Lattice Structure Asymmetry
Examples	• TSV Etched Vias (Silicon–Air Interface) • TSV Sidewall Defect Inspection • TSV Bottom Residue Detection • TGV Laser Modification (Modified vs. Unmodified Regions) • TGV Etched Holes (Glass–Air Interface) • TGV Surface and Internal Crack • Anomaly Inspection inside Glass	• TSV Blind Via Depth and Diameter Measurement • TSV Bottom Metal Plating Integrity Inspection • Surface Morphology • Structural Inspection	• Crystal Defects in Compound Semiconductors (SiC, GaN, etc.), such as MP, SF, BPD, and TSD • Subsurface Cracks in SiC Wafers (SiC Ingot Slicing Applications)

SPIROX LTS® Operating Schematic

Excitation Light

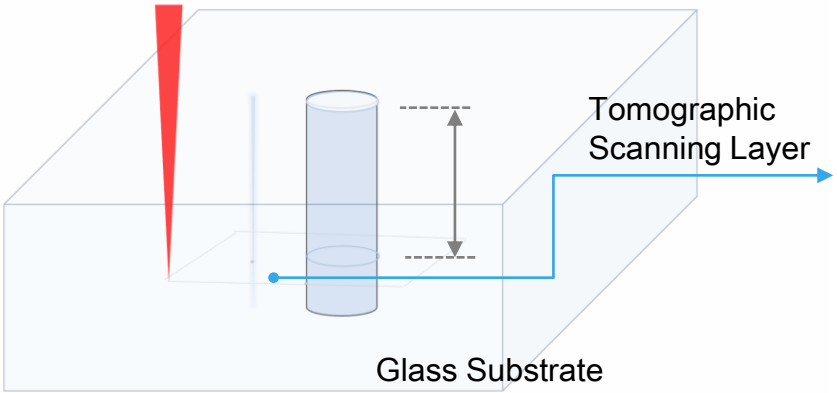
K1 Signal

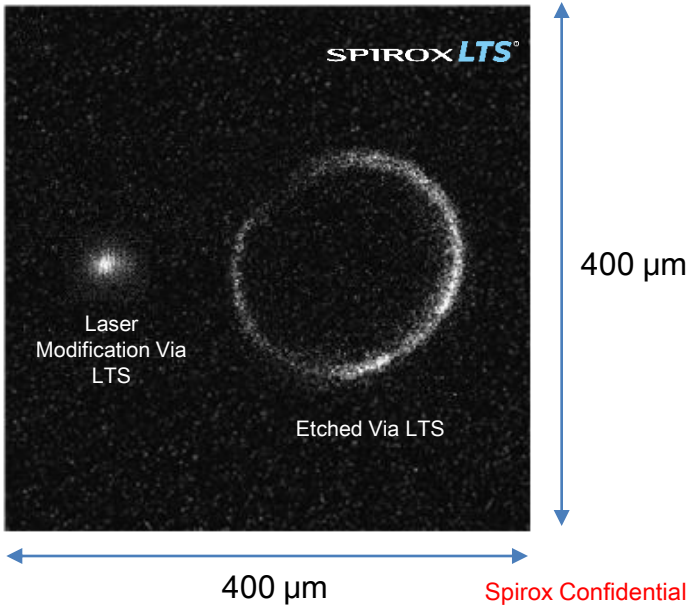
Laser Modification Via

Etched Via

Depth of the Tomographic Layer

The laser excitation light is focused through an objective lens. When the sample contains an interface, a K1 signal is generated and collected back through the objective lens. Each point of the sample is recorded, with the signal intensity reflecting the degree of contrast between different interface materials. By capturing images along the depth direction, a Laser Tomography Scan (LTS) is formed.





SPIROX LTS® Technical Advantages

1. Non-destructive Inspection

SpiroxLTS® enables non-destructive inspection of TSV, TGV, and SiC vias, providing extensive data traceability to optimize process parameters and improve yield.

*Taking **TSV** as an example, SpiroxLTS® can non-destructively and massively inspect each individual TSV, including via depth, upper/middle/lower diameters, sidewall defects, and residues on sidewalls or at the bottom. Currently, the only non-destructive alternative available on the market is **OCT**, which can measure only the average depth of TSVs within a small region and cannot capture each individual via information. Other measurements require FIB cross-sectioning followed by SEM imaging, which are time-consuming and provide limited data. Having abundant single-via depth information greatly aids etching tool parameter tuning and ensures etching process stability over time.*

In addition, SpiroxLTS® uniquely supports TGV process measurements such as laser modification, etching waist and depth, sidewall roughness, copper plating height, and glass crack detection — making it the only tool of its kind on the market.

2. Unique Measurement Capability for Transparent Materials

Unlike conventional AOI tools on the market that rely on reflected incident light imaging—often affected by scattering in transparent materials, leading to image distortion—SpiroxLTS® employs near-infrared laser excitation and detects visible light signals for imaging. This approach enables clearer and more accurate inspection of materials that transmit visible light, such as SiC and glass.

SPIROX LTS® Technical Advantages

3. Comprehensive Inspection of SiC Structural Variations Using K1 and K3 Signals

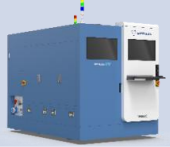
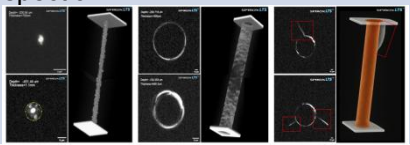
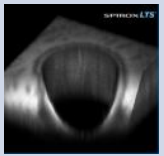
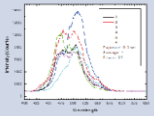
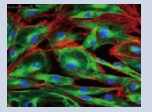
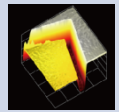
For transparent crystalline materials such as SiC, both K1 and K3 signal lights can be utilized in SpiroxLTS® to achieve the clearest measurement of structural variations. Because SiC, like glass, is a transparent material, conventional AOI systems struggle to capture clear inspection data. SpiroxLTS® technology, which already demonstrates strong advantages in TGV inspection, can extend these benefits to SiC interposers. Unlike glass, SiC is a crystalline material, so in addition to the K1 signal, the K3 signal can be leveraged to provide enhanced visualization and analysis of laser modified vias, etched vias, and laser-drilled vias in SiC.

Currently, laser modification processes on SiC often induce lattice cracks, making SpiroxLTS® an essential tool for identifying optimal parameter combinations. Moreover, sidewall roughness in direct laser drilling can only be clearly and non-destructively inspected using SpiroxLTS®.

4. Future Potential: Inspection of CPO Components such as Optical Waveguides

The market has begun to see customers exploring the use of laser modification to form optical waveguides inside glass, along with emerging requirements to measure the incident angle of SiO_2 optical waveguide facets. SpiroxLTS® is capable of measuring optical waveguide structures formed within glass through laser modification and enables observation through 3D imaging.

Products

Applications	TGV Applications	TSV Applications	Advanced Innovations
Product Number	**SP8000G** 	**SP8000S-Standard , Opt.001 & 002** 	**SP8000A** 
Model Name	Non-Destructive Laser Modification Inspection System	Non-Destructive TSV Inspection System	Laser Scanning Confocal Measurement Development Platform
Features	● Laser Modification: 2D tomogram + 3D stacking + depth-resolved dynamic images ● Etched Via: 2D tomogram/3D images, TCD/BCD/Waist CD & depth + Roundness ● Via wall roughness measurement & crack inspection ● Seed layer & Plating height distribution inspection 	● TSV Profile & CD: 2D tomogram & 3D stacking for via wall defect inspection ● Rapid-sampling of depth measurement for high aspect-ratio AWU evaluation ● Via Bottom: Residual detection  	● Modulization Platform Flexibility: Optical Microscope + Scanning Laser Confocal + Signal Acquisition/Distribution modules ● Raman/PL Spectroscopy + PL /Reflection 2D/3D Images ● Measurement Capability Versatilities: Material Analysis/Biomedical Scanning/Reflective Confocal   

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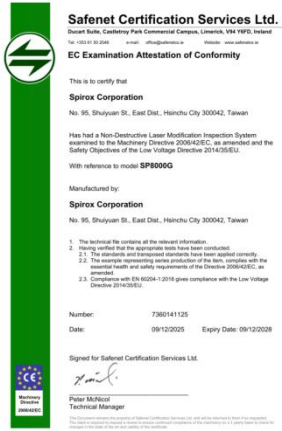
Patent and Certificate

Patent and Certificate

- Over 50 patents, including invention patent applications filed across the United States, Europe, Japan, South Korea, Taiwan, and China.
- The SpiroxLTS® trademark has been officially registered in Taiwan, the United States, and Europe.
- SP8000G has obtained CE certification (EU) and SEMI S2 certification.



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Financial Review

Summary of Statements of Consolidated Income (YoY & QoQ)

SPIROX CORPORATION and Subsidiaries

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

	2024/Q3	2024/Q4	2025/Q1	2025/Q2	2025/Q3	2025/~Q3	2024/~Q3
Net Revenue	221	63	66	209	95	371	610
YoY	(91)	(245)	(157)	43	(126)	(239)	(424)
YoY%	-29.2%	-79.5%	-70.2%	25.8%	-56.9%	-39.2%	-41.0%
Gross Profit	30	14	6	52	2	59	123
YoY	(39)	(57)	(42)	6	(28)	(64)	(44)
YoY%	-37.2%	-79.7%	-87.9%	12.6%	-94.1%	-52.0%	-26.3%
GP Margin %	13.6%	22.9%	8.6%	24.7%	1.9%	16.0%	20.2%
Operating Expenses	92	134	109	86	58	252	270
YoY	(29)	27	31	(15)	(33)	(18)	(52)
YoY%	-24.3%	25.4%	39.9%	-14.6%	-36.4%	-6.5%	-16.1%
Operating Income (loss)	(62)	(119)	(109)	(32)	(57)	(192)	(147)
YoY	(9)	(82)	(78)	23	5	(45)	7
YoY%	-18.0%	-219.4%	-255.3%	41.5%	8.2%	-30.7%	4.7%
Op. Income(loss) margin%	-28.0%	-188.9%	-164.3%	-15.2%	-59.5%	-51.7%	-24.1%
Non-Operating Rev. and Exp	6	30	22	(81)	33	(26)	(55)
YoY	80	(7)	123	(120)	27	29	(165)
YoY%	108.0%	-18.8%	122.4%	-308.8%	461.4%	53.0%	-150.4%
as % of revenue	2.7%	47.5%	33.8%	-38.9%	34.8%	-7.0%	-9.0%
Net Income (loss)	(52)	(98)	(80)	(108)	(24)	(212)	(178)
YoY	66	(106)	32	(94)	29	(34)	(115)
YoY%	55.6%	-1313.6%	28.4%	-668.1%	54.5%	-18.8%	-181.6%
Net Income (loss) margin%	-23.7%	-154.8%	-120.3%	-51.5%	-25.1%	-57.1%	-29.2%
Net Incom (loss) attributable to :							
Owners of the Parent	(48)	(88)	(75)	(104)	(17)	(196)	(163)
Non-controlling interests	(5)	(9)	(5)	(4)	(7)	(16)	(15)
EPS (NT Dollars)	(0.43)	(0.78)	(0.66)	(0.92)	(0.15)	(1.73)	(1.45)

- Our company is currently in a transformation phase evolving toward self-developed advanced optical products, aiming to enter the advanced packaging and testing market for CoWoS, specifically in TSV/TGV inspection applications, along with initial orders from leading fab customers.
- We are developing and commercializing innovative technologies, including the proprietary laser tomography technology **SpiroxLTS®**, with more than ten invention patents already filed and gradually being approved, enabling them to immediately grasp quality and reduce costs. In the future, this will lead to more customer adoption and bring substantial contributions to the company.

Summary of Consolidated Balance Sheet

SPIROX CORPORATION and Subsidiaries

Summary of Consolidated Balance Sheet (In NT$ Millions)

	2025.9.30	2024.12.31	change
Cash and time deposits(AC)	1,015	1,400	(385)
Accounts Receivable,net	120	202	(81)
Other receivable, net	3	10	(7)
Inventories, net	54	70	(16)
Financial Assets(except AC)	183	121	63
Property, plant and equipment	575	589	(15)
Other assets	142	204	(62)
Total Assets	2,093	2,596	(504)
Borrowings	16	77	(60)
Contract Liabilities	40	42	(2)
Account payable & other Liabilities	252	351	(99)
Total Liabilities	308	469	(161)
Common Stock	1,150	1,150	0
Additional Paid-In Capital	280	391	(110)
Retained Earnings	593	785	(191)
Other Equity+Treasury Stock	(266)	(247)	(20)
Minority Interest	28	49	(21)
Total equity	1,785	2,127	(343)

Financial Analysis Summary	2025/~9	2024
Account Receivable turnover days	131	165
Inventory turnover days	164	128
Debts ratio%	15%	18%
Current ratio%	737%	561%
Total current assets	1,292	1,781
Total current liabilities	175	317

I. The overall balance of assets and liabilities at the end of the third quarter of 2015 was significantly lower than that at the end of 2013, with consolidated total assets decreasing by NT$504 million and consolidated total liabilities decreasing by NT$161 million.

II. II. Regarding overall financial ratios, as of the end of September 2015, consolidated current assets totaled NT$1,292 million and consolidated current liabilities totaled NT$175 million. The debt ratio decreased to 15%, and the current ratio increased to 737%, mainly due to:(1) Cash and cash equivalents of NT$1.015 billion, representing a high ratio of 48.5% of consolidated total assets;(2) Net cash outflow from operating activities of NT$92 million, a significant decrease compared to the net outflow of NT$211 million in 2013;(3) Net loan repayments of NT$60 million.

III. We anticipate that the development of our proprietary optical product business will lead to an increase in total asset turnover and working capital turnover.

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Q&A

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Thank you.