Power management · Taiwan



## Delta Electronics (2308.TW/2308 TT)

#### **Expertise in data center & EV offerings**

FTSE4Good TIP Taiwan ESG Index stock

### Outperform · Maintained

Price as of September 28 (NT\$)	324.5
12M target price (NT\$)	401.0
Previous target price (NT\$)	410.0
Revised down (%)	2.2
Upside (%)	23.6

#### Key message

Delta Electronics met with investors in Singapore and Hong Kong. EV and data center/server-related offerings are the main drivers of growth, with rising earnings contribution likely in the mid-term, supported by strong R&D capabilities and a global production network. Maintain Outperform.

#### **Trading data**

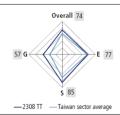
Df	60/ 120/
52-week trading range (NT\$)	252.0 –375.5
3M avg. daily trading (mn)	5.95
Foreign ownership (mn)	1,731
Outstanding shares (mn)	2,598
Mkt cap (NT\$bn/US\$mn)	843 / 26,176

Performance	3M	6M	12M
Absolute (%)	-6.5	8.7	28.8
Relative (%)	-3.1	4.5	7.4

#### **Quarterly EPS**

NT\$	1Q	2Q	3Q	4Q
2022	2.33A	2.94A	4.26A	3.05A
2023	2.66A	3.14A	3.65F	3.82F
2024	3.28F	3.81F	4.36F	4.57F

#### ESG score card



Source: TEJ

#### Event

Delta Electronics conducted a non-deal roadshow in Singapore and Hong Kong.

#### **Impact**

Data center/server and EV-related businesses grew to respective 35%+ of total revenue and 45%+ of profits. The firm guides EV and data center/server components and solutions are among the major drivers of growth in 2023, with EV components (EVSBG) and data center/server power supply sales up a respective 100%+ and 15%+ YoY in 1H23 to 10% and 18% of total revenue. Management expects solid sales growth from these applications in 2024, fueled by growing content value, partially driven by AI server adoption and rising automotive OEM EV model launches. Management notes data center/server-related businesses are the main earnings drivers, accounting for around 40%, versus sales contribution of 20-22%, and guides EVSBG operating margin will expand to the corporate average in the mid-term, versus loss in 2022 and low-single digit percent in 1H23.

Management highlights the rising importance of server DC-DC power supply modules, with the firm's leading position unrivaled by any Taiwanese peers. Management guides AI servers currently account for 2% of total revenue, and anticipates early AI server adoption and the company's 50%+ supplier allocation win in several projects will result in around 100% YoY sales growth in 2024. The importance of DC-DC power supply modules rises as server power architecture moves from 12V to 48V, as well as with increasing thermal design power (TDP) of the main processors. The firm's DC-DC power supply module sales has grown at 50%+ CAGR in 2020-23, and management expects growth to sustain as vertical power supply module shipments will commence in 2024.

We maintain 2023F EPS of NT\$13.26, but slightly trim 2024F EPS to NT\$16.02, up respective 5% and 21% YoY. Management guides seasonal strength in 3Q23 and sequential sales growth in 4Q23, and the operating margin expansion outlook is improving on improving economies of scale. We slightly raise 2023F sales to NT\$46.9bn and maintain EPS of NT\$13.26, up a respective 8% and 5% YoY. We slightly trim 2024F sales and EPS to a respective NT\$471.3bn and NT\$16.02, for 13% and 21% YoY growth, on macro uncertainties. We project data center/server and EV business sales weightings will further increase to 40% by as early as 2024.

#### Valuation & Action

We maintain Outperform, but slightly trim our 12M target price from NT\$410 to NT\$401, based on 25x revised 2024F EPS. On business diversification and growing contribution from multiple secular drivers, we believe the firm will be able to manage the impact of macro uncertainties.

#### Risks

Potential recession slows growth.

#### Key financials and valuations

	D 244	D 224	D 00E	D 045	D 055
	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue (NT\$mn)	314,671	384,443	416,930	471,286	530,226
Gross profit (NT\$mn)	90,209	110,773	120,042	137,620	156,016
Operating profit (NT\$mn)	31,365	41,439	43,783	53,673	61,700
Net profit (NT\$mn)	26,796	32,666	34,448	41,605	47,508
EPS (NT\$)	10.32	12.58	13.26	16.02	18.29
Cash DPS (NT\$)	5.50	9.84	7.50	9.00	10.00
EPS growth (%)	5.1	21.9	5.5	20.8	14.2
PE (x)	31.5	25.8	24.5	20.3	17.7
PB (x)	5.4	4.5	4.6	4.1	3.6
EV/EBITDA (x)	20.3	16.2	15.2	12.9	11.3
Net debt to equity (%)	Net cash				
Dividend yield (%)	1.7	3.0	2.3	2.8	3.1
Return on average equity (%)	17.8	19.1	18.5	21.2	21.7

Source: Company data, KGI Research estimates

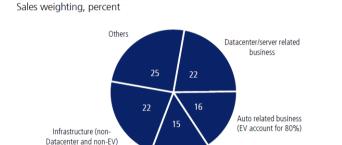
28 September 2023



#### Delta Electronics' Singapore & Hong Kong NDR – Q&A

What are the main businesses and growth catalysts in 2023? Management guides data center and EV are the top two applications and growth drivers for the firm. Data center related business, including power supply, thermal management, and infrastructure, accounts for 20%+ of total sales and contributes 40% of the firm's profit, while EV-related offerings, comprising power electronics, drivetrains, passive components, cooling fans, and EV chargers, makes up 13%+ of total sales. Based on YTD performance, management guides data center and EV-related sales will grow by high-teens percent and will nearly double, respectively, in 2023.

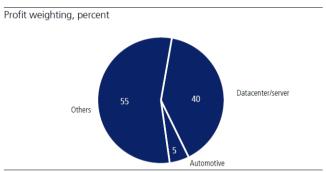
Figure 1: Data center and EV businesses represent respective 20%+ and 13%+ of total revenue



Automation

Source: KGI Research

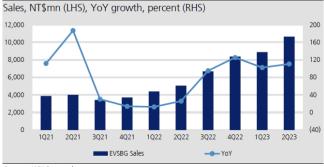
Figure 2: Data center business accounts for 40% of profits



Source: KGI Research

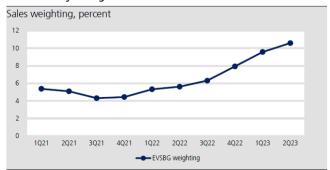
Why has Delta Electronics' EVSBG business growth outstripped the global EV market in 2023, and what's the financial outlook? The firm's EVSBG business, including onboard chargers (OBC), DC-DC converters, traction inverters, and electric motors, grew 60%+ YoY in 2022 and has risen 100%+ YoY YTD, accounting for 10% of 1H23 sales. Management attributes robust sales growth to its decade of investment, target clients' EV model launch, and mass production on easing IC supply. The firm's main EV clients comprise all major European and US traditional OEMs, as well as the largest Japanese OEM. Management believes opportunities and risks lie ahead for its EVSBG business. The proliferation of new EV models and efforts to improve EV designs for higher range will require Delta Electronics' EVSBG products and drive content value increase for Delta. Furthermore, the firm believes its core competence in power electronics development, as well as its engineering and technological capabilities, will result in shorter project development lead time. Nevertheless, the firm believes the swing factors for growth are the United Auto Workers (UAW) strike development in the US near-term and dynamic changes in the global EV competitive landscape in the mid- to long-term.

Figure 3: EVSBG sales grew 110% YoY in 1H23



Source: KGI Research

Figure 4: EVSBG accounted for 10% of 1H23 revenue, up from 5% a year ago



Source: KGI Research



The firm serves all major US OEMs, accounting for around 40% of EVSBG revenue. Management guides limited impact from the UAW strike in the US, but is concerned the deepening conflict could eventually affect US clients' production and demand for Delta. The firm is also closely monitoring target customers' competitiveness in the global EV market, as nearly all major EV suppliers nowadays, including Tesla (US), Chinese local OEMs, and Hyundai group (KR), are not Delta's current clients.

The firm achieved record-high monthly sales in August, and aims for 100% YoY sales growth to NT\$49bn for EVSBG in 2023, for sales weighting of 12%. Based on current projects on hand, management targets sequential sales growth in 2024, but at a lower magnitude due to a high comparison base. EVSBG business turned around in 4Q22, with operating margin improving to low- to mid-single digits in 2Q23. According to the management, EVSBG is likely to remain gross margin dilutive due to current applications and the nature of the business, but the company aims for continued operating margin improvement, with the target to reach the corporate average in the mid-term on growing economies of scale. This suggests EVSBG will fuel earnings going forward, despite the likelihood of sales growth peaking in 2023.

What is Delta Electronics' EV charger business strategy? EV charging business sales grew 40-50% in 1H23, with EV chargers accounting for 3% of total revenue. The firm offers a comprehensive range of EV chargers, but believes future growth will be driven by both high-wattage DC chargers and OEM business, such as those that are included with EV deliveries. The firm supplies chargers to US charging station operators, such as EVgo (US), as well as several US and European OEMs. Management sees significant charging market potential, but also growing competition, which justifies its product and client strategy toward the high-entry barrier DC charging market and major global OEMs with high product quality requirements. The firm guides tepid momentum in 3Q23 on US OEMs' announcement to adopt NACS as their charging standard in US, but shipment momentum will likely resume in 4Q23 when CPO clients realign their strategies.

What's Delta Electronics' outlook for AI servers & AI PCs? Regarding heated market discussions about the AI server trend, management believes AI demand will be strong in the coming quarters, but it is skeptical about demand sustainability beyond early market deployment, citing no clear business model in sight to justify current investment. The firm guides CoWoS capacity may not be the only supply bottleneck for Al server deliveries in 2024, as some semiconductors that are used in Al server power supplies, such as highvoltage MOSFET for 48V systems, could face supply constraints as current lead time is over 12 months. The company thinks the industry has underestimated the total cost of ownership for AI servers. On top of upfront hardware costs, Delta Electronics believes the recurring operating cost once the system is up and running could be unbearable for enterprises as there is no clear business or cash generation strategy. Operating costs include significant energy cost due to the high power consumption of AI servers and software engineers to develop the models for AI server training. As for AI PC, management believes the need for low weight and portability could constrain the computing power upgrade of Al NB. That said, the firm has yet to see significant differences in power supply requirements for AI NB under development, versus regular NB.

What's the AI server power supply sales contribution & growth outlook? The company defines AI servers as GPU-based servers, and estimates AI server power supply sales of NT\$8-9bn in 2023, or around 2% of total revenue. Management guides AI servers have higher content value of its products due to greater power demand than that of general servers. The company guides 50% allocation win for many upcoming AI server projects, supporting sales contribution to double in 2024. Due to higher entry barriers, gross margin is higher than that of general servers. As the firm is skeptical about AI server demand sustainability after early deployment, management suggests investors focus on the firm's overall data center and server business development in the mid- to long-term,



highlighting the growing importance of DC-DC power supply modules for server motherboards and graphics cards.

What's the company's position in the server DC-DC power supply market & what's the potential impact of the Vicor (US) lawsuit? Delta Electronics is a global top-three supplier of server DC-DC power supply modules, with rapid growth over the past several years. Facilitating power distribution to devices on the server motherboard and graphics cards, DC-DC power supply modules currently contribute 3% of total revenue. Management sees huge growth potential going forward as DC-DC power supply modules are becoming more critical as power architecture on server motherboards increases from 12V to 48V, and as CPU/GPU TDP increases, which mandates greater power supply efficiency. The company believes vertical power delivery, a new type of DC-DC power supply module, will gain traction in 2024. Vertical power means a DC-DC power module is placed directly under the CPU/GPC to shorten power distribution distance to accommodate higher currents required for IC and lower resistance. Delta Electronics notes the firm is currently competing with global IC companies, such as Monolithic Power Systems (US) and Vicor (US), in the DC-DC power supply module market, but is unrivaled in Taiwan as no other domestic companies possess DC-DC power supply module development technology.

Vicor filed a lawsuit in the US District Court for the Eastern District of Texas and petitioned the US International Trade Commission against Delta Electronics' subsidiaries, namely Cyntec, Delta Electronics (Americas), and Delta Electronics (USA) in July, alleging patent infringement for 48V/12V bidirectional DC-DC power supply modules. Management guides sales exposure subject to the investigation is 1% of the firm's revenue and has seen no change in customer orders so far. The firm guides the products were independently developed via IP ownership, and do not infringe upon the plaintiff's claimed patent rights after an initial internal review. Subsidiaries are required to respond by October 10 and November 9, 2023. According to our understanding, Delta Electronics has gained market share for global server DC-DC power supply modules, which has resulted in a 2020-23 sales CAGR of 50%, versus Vicor's sales CAGR of 12% for the same period.

# What's Delta Electronics' (Thailand) role & the group's future expansion strategy? Delta Electronics owns 63.78% of Delta Electronics (Thailand) (DET), which currently contributes around 25% of Delta Electronics group's production value. Delta Electronics

contributes around 25% of Delta Electronics group's production value. Delta Electronics believes the significance of Thailand as a major production hub will increase due to rising geopolitical tensions, and guides ongoing aggressive expansion to support server and EV business growth. The firm plans to double the number of factories in Thailand over the next five years, with production contribution to further increase. In addition to Thailand, the firm is expanding its global production footprint, adding new production sites in Chongqing, China and Hungary, as well as building new factories in India and Texas, US. China operations will remain the largest globally, but the production contribution will gradually decline from 65% to around 60% in the mid- to long-term. Chongqing will serve as the production hub for components destined for Europe via train, while Thailand will serve as the component production center for US customers. Final systems/solutions will then be assembled in factories in Eastern Europe, the US, and Mexico. With capacity expansion plans and the construction of new R&D centers, management guides capex will increase from NT\$22bn in 2022 to a peak of around NT\$28bn in 2023.

What is the firm's growth strategy & competitive advantage? The company operates eight business groups in three main business segments, namely power electronics (61% of 2Q23 sales), automation (14%), and infrastructure (25%). Over the past two decades, the firm lowered exposure to consumer IT products and increased exposure to the enterprise, industrial, and automotive markets, aiming for business and client diversification and sustainability. Management guides ongoing efforts to transform from a component manufacturer to a system/solution provider, and guides to strengthen



competitiveness via heavy R&D investment and cost reductions partially through increased automation and in-house component supply. Delta Electronics' R&D expenditures registered a 2018-22 CAGR of 13%, accounting for 8% of sales, far exceeding that of any power supply vendor in Taiwan.

R&D expense, NT\$mn (LHS), R&D expense ratio, percent (RHS) 20 10 16 8 12 6 8 4 4 2 0 0 Delta AcBel Chicony Power Lite-On ■ R&D expense R&D expense ratio

Figure 5: 1H23 Delta R&D expenditure exceeding any power supplier in Taiwan

Source: KGI Research

What is the firm's ESG target & progress? Management is committed to achieving RE100 by 2030, and net-zero by 2050. In 2022, the firm achieved RE63 collectively at all global operation sites. Through internal energy saving initiatives and use of self-generated renewable electricity, the firm reduced location-based carbon emissions by 16.2% and market-based emissions by 13.5% in 2022. To ensure all business groups are aligned with the firm's carbon reduction target, management launched an internal carbon tax scheme in 2022 and has collected NT\$12bn so far for a price of US\$300 per ton of CO2 emitted. Management notes the proceeds have been used to acquire green power and invest in R&D for energy efficiency projects.

What's the firms' 2024 outlook & mid- to long-term financial target? Management has yet to finalize its 2024 budget, but aims to sustain 10%+ YoY sales growth in 2024 via products that are aligned with secular trends, such as EV and data center. The firm expects some business groups that have seen sales decline in 2023 to recover in 2024, such as passive components, with EV applications as the main catalysts. However, the outlook for telecom power business, which has suffered from decreasing sales, remains unclear as macro uncertainty could continue to weigh on telecom operators' capital expenditures. Management guides the product mix will continue to affect gross margin (i.e. EVSBG is gross margin dilutive) in the near-term, but the firm aims to sustain gross margin at the high end of 25-30% in the mid-term. Through expansion of economies of scale, the firm aims to achieve mid- to long-term operating margin of 12-13%.

28 September 2023



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Figure 6: Breakdown	Ot 3()-4())3	toracast revisions vs	CONCANCIIC
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				3Q23F							4Q23F			
NT\$mn	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)
Sales	109,275	111,489	(2.0)	8.7	2.8	110,993	(1.5)	114,245	110,378	3.5	4.5	8.1	113,567	0.6
Gross profit	31,744	33,224	(4.5)	8.1	(1.3)	32,756	(3.1)	33,359	32,562	2.5	5.1	12.7	33,350	0.0
Operating profit	12,184	12,933	(5.8)	18.5	(10.0)	12,667	(3.8)	12,910	12,252	5.4	6.0	19.8	13,028	(0.9)
Net income	9,473	9,963	(4.9)	16.2	(14.4)	9,908	(4.4)	9,918	9,433	5.1	4.7	25.4	10,179	(2.6)
EPS (NT\$)	3.65	3.84	(4.9)	16.2	(14.4)	3.80	(4.0)	3.82	3.63	5.1	4.7	25.4	3.90	(2.0)
Gross margin (%)	29.1	29.8	(0.8) ppts	(0.2) ppts	(1.2) ppts	29.5	(0.5) ppts	29.2	29.5	(0.3) ppts	0.2 ppts	1.2 ppts	29.4	(0.2) ppts
Op. margin (%)	11.2	11.6	(0.5) ppts	0.9 ppts	(1.6) ppts	11.4	(0.3) ppts	11.3	11.1	0.2 ppts	0.2 ppts	1.1 ppts	11.5	(0.2) ppts
Net margin (%)	8.7	8.9	(0.3) ppts	0.6 ppts	(1.7) ppts	8.9	(0.3) ppts	8.7	8.5	0.1 ppts	0.0 ppts	1.2 ppts	9.0	(0.3) ppts

Source: Refinitiv, KGI Research

Figure 7: Breakdown of 2023-24 forecast revisions vs. consensus

			20	23F			2024F					
NT\$mn	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)
Sales	416,930	415,278	0.4	8.5	418,999	(0.5)	471,286	476,589	(1.1)	13.0	474,216	(0.6)
Gross profit	120,042	120,724	(0.6)	8.4	121,171	(0.9)	137,620	139,573	(1.4)	14.6	138,593	(0.7)
Operating profit	43,783	43,874	(0.2)	5.7	44,445	(1.5)	53,673	54,852	(2.1)	22.6	54,654	(1.8)
Net income	34,448	34,453	(0.0)	5.5	35,102	(1.9)	41,605	42,548	(2.2)	20.8	42,572	(2.3)
EPS (NT\$)	13.26	13.26	(0.0)	5.5	13.49	(1.7)	16.02	16.38	(2.2)	20.8	16.39	(2.3)
Gross margin (%)	28.8	29.1	(0.3) ppts	(0.0) ppts	28.9	(0.1) ppts	29.2	29.3	(0.1) ppts	0.4 ppts	29.2	(0.0) ppts
Op. margin (%)	10.5	10.6	(0.1) ppts	(0.3) ppts	10.6	(0.1) ppts	11.4	11.5	(0.1) ppts	0.9 ppts	11.5	(0.1) ppts
Net margin (%)	8.3	8.3	(0.0) ppts	(0.2) ppts	8.4	(0.1) ppts	8.8	8.9	(0.1) ppts	0.6 ppts	9.0	(0.1) ppts

Source: Refinitiv, KGI Research

Figure 8: Delta Electronics' business structure

Segment	2Q23 sales weighting (%)	Business group	2Q23 sales weighting (%)	2023F sales weighting (%)	Products
		Electric vehicle solution (EVSBG)	11	12	On-board charger, DC/DC converter, traction motor, traction inverter
Power electronics	61	Power supply (PSBG)	32	32	DT power, NB power, server power, home appliance power, game console power, offline UPS, printer power, and other; medical device power, industrial power module
		Component (CPBG)	9	9	Passive component (Cyntec), optical transceiver
		Fan & thermal (FMBG)	9	10	Cooling fan, thermal module
Automation	14	Industrial automation (IABG)	9	9	Industrial automation (Servo motor, AC motor drive, PLC, CNC control, HMI, robot arms)
Automation	14	Building automation (BABG)	5	5	Building automation solution, LED lighting fixture, surveillance camera, controller
		Information & communication technology (ICTBG)	18	18	Telecom power, data center solutions, networking
Infrastructure 25		Energy infrastructure system (EISBG)	6	6	Off-board EV-charger, renewable energy (solar inverter & wind power converter), energy storage system, display, power-conditioning system

Note: Industrial and medical power supplies (2% of revenue combined) were moved from EISBG to PSBG, effective 1Q21

Source: Company data; KGI Research

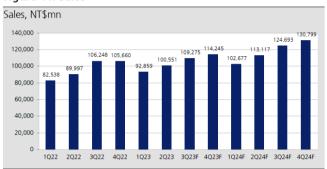


#### Figure 9: Company profile

Established in 1971, Delta Electronics is a leading global supplier of electronics components. Some of its products command significant global market share. Post the acquisition of Delta Electronics (Thailand) in April 2019, the firm now operates production facilities in China, Taiwan, Thailand, India, and Slovakia. Power electronics, automation, and infrastructure accounted for a respective 59%, 14%, and 27% of 2022 sales.

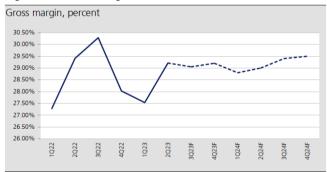
Source: KGI Research

Figure 11: Sales



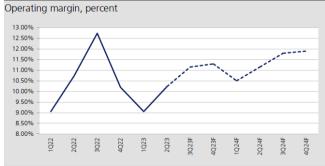
Source: KGI Research

Figure 13: Gross Margin



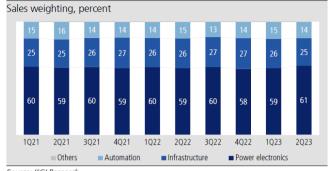
Source: KGI Research

Figure 15: Operating Margin



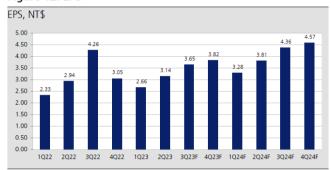
Source: KGI Research

Figure 10: Sales mix



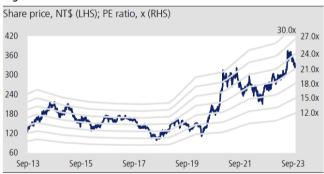
Source: KGI Research

Figure 12: EPS



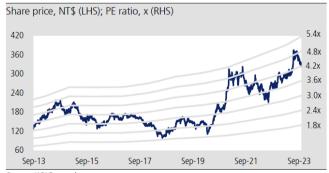
Source: KGI Research

Figure 14: 12M forward PE band



Source: KGI Research

Figure 16: 12M forward PB band



Source: KGI Research

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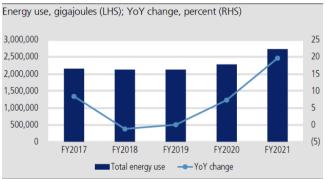
Figure 17: Overall ESG score



Source: Refinitiv; KGI Research; Company data

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Figure 19: Energy use



Source: Refinitiv; KGI Research; Company data

Figure 21: Water use to revenue



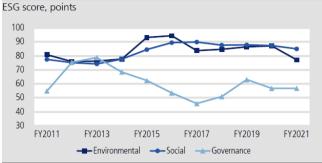
Source: Refinitiv; KGI Research; Company data

Figure 23: Gender diversification



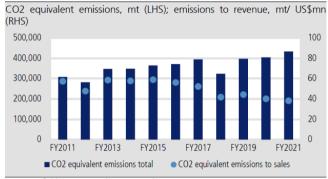
Source: Refinitiv; KGI Research; Company data

Figure 18: ESG score by category



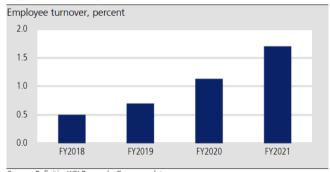
Source: Refinitiv; KGI Research; Company data

Figure 20: CO2 equivalent emissions



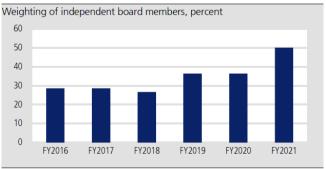
Source: Refinitiv; KGI Research; Company data

Figure 22: Employee turnover



Source: Refinitiv; KGI Research; Company data

Figure 24: Independent board members



Source: Refinitiv; KGI Research; Company data

## **Delta Electronics**



ESG chart definition		
Item	Definition Remarks	
Energy use	Total direct and indirect energy consumption in gigajoules.  - the total amount of energy that has been consumed within the boundaries of the company's operations  - total energy use = total direct energy consumption + indirect energy consumption  - purchased energy and produced energy are included in total energy use  - for utilities, transmission/ grid loss as part of its business activities is considered as total energy consumed and data does not consider electricity produced to answer energy use (utility company produces to sell)  - for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use'	
Renewable energy purchased	Total primary renewable energy purchased in gigajoules.  - energy consumed by the company from various sources and among the purchased energy, how much energy is renewable in nature (solar, wind, hydro, biomass, geothermal) are in scope  - if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased	
Renewable energy use ratio	Renewable energy to total energy used	
CO2 equivalent emissions	Direct CO2 and CO2 equivalent emissions in metric tons direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCS), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	
CO2 equivalent emissions to sales	Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$mn) - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCS), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	
Waste total	Total amount of waste produced in metric tons.  - total waste = non-hazardous waste + hazardous waste  - only solid waste is taken into consideration, exceptionally if liquid waste is reported in metric tons, then we do the summation to derive total including liquid waste  - for sectors like mining, oil & gas, waste generation like tailings, waste rock, coal and fly ash are also considered	
Waste recycling ratio	The waste recycling ratio as reported by the company.  - waste recycling ratio = waste recycled/total waste*100  - waste to energy or waste incinerated with energy recovery are considered as waste recycled  - waste recovered via composting is considered as recycled waste	
Water withdrawal total	Total water withdrawal in cubic meters.  - the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries such as water utilities  - different sources of water like wells, town/utility/municipal water, river water, and surface water are considered	
Environmental expenditures	Total amount of environmental expenditures all environmental investment & expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It also includes disposal, treatment, sanitation, and clean-up expenditures	
Turnover of employees	Percentage of employee turnover.  - includes employees who left the company for any reason (voluntary or involuntary), such as resignations, retirement, natural departure/death, medical incapacitation, redundancy, layoffs, restructuring, dismissal, retrenchment or end of a fixed-term contract  - employees turnover rate = (employees leaving/average number of employees)*100  - where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2  - employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving	
Women managers	Percentage of women managers.  - percentage of women managers among total managers of the company  - if there is a breakdown by category in percentage, such as top, senior, middle, and junior management, then we consider the percentage of middle women managers  - percentage of women managers = number of women managers/total number of managers*100	
Women employees	Percentage of women employees percentage of women employees to the total number of employees of the company - percentage of women employees = number of women/total number of employees*100	
Training hours total	Total training hours performed by all employees.  - consider only employee training hours  - includes all types of training given to general employees (such as health & safety, environmental, emergency response, skills & career development training)  - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked	
Training hours per employee	Training hours per employee per year	



Income statement											
	Quarterly								Annually		
	Mar-23A	Jun-23A	Sep-23F	Dec-23F	Mar-24F	Jun-24F	Sep-24F	Dec-24F	Dec-23F	Dec-24F	Dec-25
Income statement (NT\$mn)											
Revenue	92,859	100,551	109,275	114,245	102,677	113,117	124,693	130,799	416,930	471,286	530,226
Cost of goods sold	(67,292)	(71,181)	(77,530)	(80,885)	(73,106)	(80,313)	(88,033)	(92,213)	(296,888)	(333,666)	(374,211
Gross profit	25,568	29,371	31,744	33,359	29,571	32,804	36,660	38,586	120,042	137,620	156,016
Operating expenses	(17,161)	(19,088)	(19,560)	(20,450)	(18,790)	(20,191)	(21,946)	(23,021)	(76,259)	(83,948)	(94,316
Operating profit	8,407	10,283	12,184	12,910	10,781	12,613	14,714	15,565	43,783	53,673	61,700
Depreciation of fixed assets	(4,082)	(4,290)	(4,397)	(4,507)	(4,597)	(4,689)	(4,783)	(4,879)	(17,277)	(18,949)	(20,511
Amortisation of intangible assets	(984)	(973)	(980)	(980)	(980)	(980)	(980)	(980)	(3,917)	(3,920)	(3,920
EBITDA	13,472	15,546	17,561	18,397	16,358	18,282	20,477	21,424	64,977	76,541	86,131
Interest income	372	443	486	410	538	610	586	546	1,710	2,280	2,818
Investment income	10	24	30	30	30	30	30	30	93	120	120
Other non-op income	931	929	975	950	1,000	1,000	1,000	1,000	3,785	4,000	4,000
Non-operating income	1,312	1,396	1,491	1,390	1,568	1,640	1,616	1,576	5,588	6,400	6,938
Interest expense	(254)	(238)	(226)	(226)	(226)	(226)	(226)	(226)	(943)	(903)	(903
Investment loss	-	-	-	-	_	-	-	-	-	-	_
Other non-op expenses	494	508	380	300	300	300	300	300	1,682	1,200	1,200
Non-operating expenses	241	270	154	74	74	74	74	74	739	297	297
Pre-tax profit	9,959	11,948	13,829	14,374	12,424	14,327	16,403	17,215	50,110	60,369	68,935
Current taxation	(1,988)	(2,425)	(2,766)	(2,875)	(2,534)	(2,865)	(3,281)	(3,443)	(10,054)	(12,123)	(13,844
Minorities	(1,063)	(1,374)	(1,590)	(1,581)	(1,367)	(1,576)	(1,804)	(1,894)	(5,609)	(6,641)	(7,583
Normalised net profit	6,908	8,149	9,473	9,918	8,523	9,885	11,318	11,878	34,448	41,605	47,508
Extraordinary items	0	(0)	-	-	-,	-	-	-	-	-	-
Net profit	6,908	8,149	9,473	9,918	8,523	9,885	11,318	11,878	34,448	41,605	47,508
EPS (NT\$)	2.66	3.14	3.65	3.82	3.28	3.81	4.36	4.57	13.26	16.02	18.29
Margins (%)											
Gross profit margin	27.5	29.2	29.1	29.2	28.8	29.0	29.4	29.5	28.8	29.2	29.4
Operating margin	9.1	10.2	11.2	11.3	10.5	11.2	11.8	11.9	10.5	11.4	11.6
EBITDA margin	14.5	15.5	16.1	16.1	15.9	16.2	16.4	16.4	15.6	16.2	16.2
Pretax profit margin	10.7	11.9	12.7	12.6	12.1	12.7	13.2	13.2	12.0	12.8	13.0
Net profit margin	7.4	8.1	8.7	8.7	8.3	8.7	9.1	9.1	8.3	8.8	9.0
Sequential growth (%)											
Revenue growth	(12.1)	8.3	8.7	4.5	(10.1)	10.2	10.2	4.9			
Gross profit growth	(13.7)	14.9	8.1	5.1	(11.4)	10.9	11.8	5.3			
Operating profit growth	(22.0)	22.3	18.5	6.0	(16.5)	17.0	16.7	5.8			
EBITDA growth	(14.5)	15.4	13.0	4.8	(11.1)	11.8	12.0	4.6			
Pretax profit growth	(13.6)	20.0	15.7	3.9	(13.6)	15.3	14.5	4.9			
Net profit growth	(12.7)	18.0	16.2	4.7	(14.1)	16.0	14.5	4.9			
YoY growth (%)	(1217)	10.0	10.2		(1111)	10.0					
Revenue growth	12.5	11.7	2.8	8.1	10.6	12.5	14.1	14.5	8.5	13.0	12.5
Gross profit growth	13.6	11.0	(1.3)	12.7	15.7	11.7	15.5	15.7	8.4	14.6	13.4
Operating profit growth	12.6	6.5	(10.0)	19.8	28.2	22.7	20.8	20.6	5.7	22.6	15.0
EBITDA growth	12.0	0.5	(10.0)	15.0	20.2	22.1	20.0	20.0	5.7	22.0	
LDITUM GIOWEII	12.6	8.6	(4.2)	16.7	21.4	17.6	16.6	16.5	7.6	17 Q	12.5
Pretax profit growth	12.6 16.6	8.6 10.3	(4.2) (8.8)	16.7 24.7	21.4 24.7	17.6 19.9	16.6 18.6	16.5 19.8	7.6 8.8	17.8 20.5	12.5 14.2

Source: Company data, KGI Research estimates



Balance sheet					
NT\$mn	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Total assets	365,112	425,874	447,572	491,643	534,836
Current assets	196,878	240,450	252,865	295,685	343,188
Cash & ST securities	51,268	63,572	56,379	65,308	90,355
Inventory	66,107	79,844	87,203	103,526	114,958
Accounts receivable	70,885	87,227	99,735	117,301	128,326
Other current assets	8,618	9,807	9,549	9,549	9,549
Non-current assets	168,234	185,423	194,707	195,958	191,648
LT investments	5,017	4,623	5,280	5,400	5,520
Net fixed assets	76,607	86,267	97,493	102,545	102,034
Other assets	86,609	94,534	91,934	88,014	84,094
Total liabilities	178,988	200,507	219,453	234,760	246,240
Current liabilities	108,169	125,013	132,007	147,314	158,794
Accounts payable	54,570	62,716	69,133	84,440	95,921
Interest bearing ST liabilities	4,442	2,119	2,508	2,508	2,508
Other current liabilities	49,157	60,179	60,366	60,366	60,366
Non-current liabilities	70,818	75,493	87,446	87,446	87,446
Long-term debt	43,914	44,337	25,213	25,213	25,213
Other L-T liabilities	25,538	28,853	59,971	59,971	59,971
Total equity	186,125	225,367	228,119	256,883	288,596
Share capital	25,975	25,975	25,975	25,975	25,975
Retained earnings reserve	53,623	65,907	84,724	106,847	130,977
Minority interests	31,338	38,578	43,124	49,765	57,347
Preferred shareholders funds	-	-	-	-	-

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Growth					
Revenue growth	11.3%	22.2%	8.5%	13.0%	12.5%
Operating profit growth	(0.2%)	32.1%	5.7%	22.6%	15.0%
EBITDA growth	2.6%	24.4%	7.6%	17.8%	12.5%
Net profit growth	5.1%	21.9%	5.5%	20.8%	14.2%
EPS growth	5.1%	21.9%	5.5%	20.8%	14.2%
Profitability					
Gross profit margin	28.7%	28.8%	28.8%	29.2%	29.4%
Operating margin	10.0%	10.8%	10.5%	11.4%	11.6%
EBITDA margin	15.4%	15.7%	15.6%	16.2%	16.2%
Net profit margin	8.5%	8.5%	8.3%	8.8%	9.0%
Return on average assets	7.6%	8.3%	7.9%	8.9%	9.3%
Return on average equity	17.8%	19.1%	18.5%	21.2%	21.7%
Stability					
Gross debt to equity	26.0%	20.6%	12.2%	10.8%	9.6%
Net debt to equity	Net cash				
Interest coverage (x)	121.7	81.6	54.1	67.8	77.3
Interest & ST debt coverage (x)	0.9	0.9	0.9	0.9	1.0
Cash flow interest coverage(x)	95.9	81.4	53.9	58.0	75.8
Cash flow/int. & ST debt (x)	6.0	17.3	14.7	15.4	20.1
Current ratio (x)	1.8	1.9	1.9	2.0	2.2
Quick ratio (x)	1.2	1.3	1.3	1.3	1.4
Net debt (NT\$mn)	(1,499)	(15,090)	(26,321)	(35,250)	(60,297)
Per share data					
EPS (NT\$)	10.32	12.58	13.26	16.02	18.29
CFPS (NT\$)	10.90	17.91	19.58	20.18	26.34
BVPS (NT\$)	59.59	71.91	71.22	79.74	89.03
Adj BVPS (NT\$)	59.59	71.91	71.22	79.74	89.03
SPS (NT\$)	121.14	148.00	160.51	181.44	204.13
EBITDA/share (NT\$)	18.68	23.24	25.01	29.47	33.16
Cash DPS (NT\$)	5.50	9.84	7.50	9.00	10.00
Activity					
Sales / avg assets	0.90	0.97	0.95	1.00	1.03
Days receivable	82.2	82.8	87.3	91.1	88.3
Days inventory	107.5	106.5	107.2	113.6	112.1
Days payable	88.7	83.6	85.0	92.6	93.6
Cash cycle	101.0	105.7	109.5	112.0	106.9

Source: Company data, KGI Research estimates

Profit & loss					•
NT\$mn	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue	314,671	384,443	416,930	471,286	530,226
Cost of goods sold	(224,461)	(273,671)	(296,888)	(333,666)	(374,211)
Gross profit	90,209	110,773	120,042	137,620	156,016
Operating expenses	(58,845)	(69,334)	(76,259)	(83,948)	(94,316)
Operating profit	31,365	41,439	43,783	53,673	61,700
Non-operating income	3,520	4,001	5,588	6,400	6,938
Interest income	430	610	1,710	2,280	2,818
Investment income	296	323	93	120	120
Other non-op income	2,795	3,068	3,785	4,000	4,000
Non-operating expenses	743	626	739	297	297
Interest expense	(295)	(571)	(943)	(903)	(903)
Investment loss	(0)	-	-	-	-
Other non-op expenses	1,038	1,197	1,682	1,200	1,200
Pre-tax profit	35,628	46,065	50,110	60,369	68,935
Current taxation	(7,128)	(9,075)	(10,054)	(12,123)	(13,844)
Minorities	(1,703)	(4,325)	(5,609)	(6,641)	(7,583)
Extraordinary items	-	(0)	-	-	-
Net profit	26,796	32,666	34,448	41,605	47,508
EBITDA	48,516	60,375	64,977	76,541	86,131
EPS (NT\$)	10.32	12.58	13.26	16.02	18.29

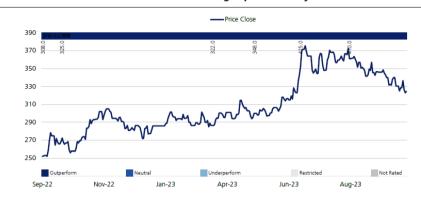
Cash flow					
NTSmn	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Operations cash flow	28,319	46,529	50,860	52,411	68,425
Net profit	26,796	32,666	34,448	41,605	47,508
Depreciation & amortisation	17,151	18,936	21,194	22,869	24,431
Decrease in working capital	(20,506)	(20,062)	(13,341)	(18,583)	(10,976)
Other operating cash flow	4,878	14,990	8,560	6,521	7,463
Investing cash flow	(26,481)	(24,719)	(28,485)	(24,000)	(20,000)
Sale of ST investment	178	218	-	-	-
New investments	604	-	(105)	-	-
Capital expenditure	(23,027)	(21,824)	(28,097)	(24,000)	(20,000)
Others investing cashflow	(4,235)	(3,113)	(282)	-	-
Free cash flow	(4,977)	6,409	10,837	19,260	38,843
Financing cash flow	(8,337)	(19,739)	(29,273)	(19,482)	(23,378)
Increase in short term debt	2,396	(2,321)	245	-	-
Increase in long term loans	4,597	421	(19,111)	-	-
New ordinary shares issued	-	-			
Ordinary dividends paid	(15,751)	(15,026)	(25,560)	(19,482)	(23,378)
Other financing cashflow	421	(2,814)	15,153	(0)	(0)
Forex effects	(2,358)	9,621	(608)	-	-
Total cash generated	(8,857)	11,692	(7,506)	8,930	25,047

ROIC						
	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F	
1 - COGS/revenue						
- Operating exp./revenue	18.7%	18.0%	18.3%	17.8%	17.8%	
= Operating margin	10.0%	10.8%	10.5%	11.4%	11.6%	
1 / (Working capital/revenue	0.1	0.1	0.2	0.2	0.2	
+ Net PPE/revenue	0.2	0.2	0.2	0.2	0.2	
+ Other assets/revenue)	0.0	0.0	0.2	0.2	0.1	
= Capital turnover	2.6	2.7	1.8	1.8	2.0	
Operating margin	10.0%	10.8%	10.5%	11.4%	11.6%	
x Capital turnover	2.6	2.7	1.8	1.8	2.0	
x (1 - tax rate)	80.0%	80.3%	79.9%	79.9%	79.9%	
= After-tax ROIC	20.7%	23.1%	14.7%	16.4%	18.1%	

Source: Company data, KGI Research estimates



#### Delta Electronics - Recommendation & target price history



Date	Rating	Target	Price
2023-08-01	Outperform	410.0	372.5
2023-06-13	Outperform	415.0	343.0
2023-04-28	Outperform	348.0	300.0
2023-03-17	Outperform	322.0	286.5
2023-02-23	Outperform	325.0	290.0
2023-02-07	Outperform	325.0	296.0
2022-10-27	Outperform	325.0	258.0
2022-10-17	Outperform	325.0	268.5
2022-09-14	Outperform	308.0	268.0
2022-07-28	Outperform	303.0	262.0

Source: TEJ, KGI Research

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