NEW ZEALAND EQUITY RESEARCH | TECHNOLOGY | ELECTRONIC EQUIPMENT & PARTS
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Rakon Limited
Robust FY23 Completed

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Rakon (RAK) reported solid underlying EBITDA of NZ$42.2m for FY23, within management's upgraded guidance. The FY23 underlying EBITDA result was down -23% on FY22, a year bolstered by one-off contracts at elevated margins. Revenue grew +5% to NZ$180.3m over the year, with strong contributions from RAK's core Telecommunications , Space and Defence, and Positioning segments, which collectively grew +19%. FY23 NPAT was NZ$23.2m, positively impacted by foreign currency translation, but losses at the associates' line partially offset these gains. RAK invested heavily into growth initiatives in FY23, including spending NZ$17m on R&D and the majority of the NZ$14m–NZ$15m total to be spent on RAK's new Indian facility. The new manufacturing site will provide increased capacity and cost-savings for RAK in the medium to long-term. These investments and inventory build-up for supply chain resilience meant net cash fell to NZ$16.4m by FY23 year-end. RAK's board announced an inaugural final dividend of NZ1.5cps, fully imputed. RAK provided FY24 underlying EBITDA guidance of between NZ$26m and NZ$34m, down -29% at the midpoint from FY23. Cuts to our FY24 underlying EBITDA estimate see it sit slightly above the midpoint of management's range at NZ$31m. Our blended spot valuation falls from NZ$1.39 to NZ$1.32.

NZX Code	RAK
Share price	NZ$1.05
Spot Valuation	NZ$1.32 (from 1.39)
Risk rating	High
Issued shares	229.1m
Market cap	NZ$241m
Avg daily turnover	68.5k (NZ$81k)

Financials: Mar/	23A	24E	25E	26E
Rev (NZ$m)	180.7	171.1	194.0	220.2
NPAT* (NZ$m)	23.2	14.6	20.8	27.7
EPS* (NZc)	10.1	6.4	9.1	12.1
DPS (NZc)	1.5	1.5	1.5	3.0
Imputation (%)	100	100	100	100

*Based on normalised profits

Valuation (x)	23A	24E	25E	26E
PE	10.4	16.5	11.5	8.7
EV/EBIT	n/a	n/a	n/a	n/a
EV/EBITDA	n/a	n/a	n/a	n/a
Price / NTA	1.6	1.5	1.4	1.2
Cash div yld (%)	1.4	1.4	1.4	2.9
Gross div yld (%)	2.0	2.0	2.0	4.0

What's changed?

- **Earnings:** We trim our underlying EBITDA forecast by -12% in FY24 to NZ$31.0m and -10% in FY25 to NZ$39.0m and -7% in FY26 to NZ$48.7m.
- **Spot valuation:** Our blended spot valuation falls -NZ7cps or -5% to NZ$1.32.

RAK's core Telecommunications, Positioning and Space, and Defence divisions were strong during FY23

RAK's core business operations delivered strong performances with rising revenues and gross profits, aided by production capacity as one-off orders were completed. Telecommunications infrastructure led this growth, with revenue growing +18%, driven by new design wins and 5G network deployments, while the division's gross profit was up +15% to NZ$42.9m. Space and Defence increased revenue by +18% due to solid demand for high-reliability space applications, and gross profit rose +16% to NZ$19.7m. Positioning showed steady growth supported by a locator beacon resurgence, with revenue rising +21% and gross profit +10% at NZ$18.1m. As expected, RAK's Other division saw revenues fall due to the completion of the sizable chip-shortage orders during the period.

Investments in technology and capacity now pays dividends

In a milestone for RAK, the company declared a maiden fully imputed dividend of 1.5 cents per share and announced a dividend reinvestment plan would follow. The dividend has a record date of 24 July 2023, with payment planned for 8 August 2023.

Rakon Limited (RAK)

Market Data (NZ$)	
Priced as at 24 May 2023	**1.05**
52 week high / low	1.63 / 0.83
Market capitalisation (NZ$m)	240.5

Key WACC assumptions	
Risk free rate	4.50%
Equity beta	1.13
WACC	9.9%
Terminal growth	2.0%

Profit and Loss Account (NZ$m)	2022A	2023A	2024E	2025E	2026E
Revenue	173.6	180.7	171.1	194.0	220.2
Normalised EBITDA	**50.4**	**41.1**	**28.5**	**36.3**	**45.6**
Depreciation and amortisation	(8.9)	(7.8)	(9.4)	(9.6)	(9.7)
Normalised EBIT	**41.4**	**33.3**	**19.0**	**26.8**	**35.9**
Net interest	(1.9)	(0.5)	(0.0)	0.0	(0.3)
Associate income	2.4	(1.5)	0.5	1.0	1.3
Tax	(8.8)	(8.1)	(4.9)	(6.9)	(9.2)
Minority interests	0	0	0	0	0
Normalised NPAT	**33.1**	**23.2**	**14.6**	**20.8**	**27.7**
Abnormals/other	0	0	0	0	0
Reported NPAT	**33.1**	**23.2**	**14.6**	**20.8**	**27.7**
Normalised EPS (cps)	14.5	10.1	6.4	9.1	12.1
DPS (cps)	0	1.5	1.5	1.5	3.0

Growth Rates	2022A	2023A	2024E	2025E	2026E
Revenue (%)	32.7	4.1	-5.3	13.4	13.5
EBITDA (%)	>100	-18.3	-30.8	27.5	25.5
EBIT (%)	>100	-19.5	-42.9	40.5	34.2
Normalised NPAT (%)	>100	-29.9	-37.0	42.5	33.1
Normalised EPS (%)	>100	-29.9	-37.0	42.5	33.1
Ordinary DPS (%)	n/a	n/a	0.0	0.0	100.0

Cash Flow (NZ$m)	2022A	2023A	2024E	2025E	2026E
EBITDA	**50.4**	**41.1**	**28.5**	**36.3**	**45.6**
Working capital change	(15.3)	(18.2)	6.9	(5.6)	(7.7)
Interest & tax paid	(2.3)	(10.5)	(4.9)	(6.9)	(9.5)
Other	(2.6)	(1.3)	0.5	1.0	1.3
Operating cash flow	**30**	**11.1**	**30.9**	**24.8**	**29.7**
Capital expenditure	(10.2)	(18.7)	(7.4)	(7.4)	(8.3)
(Acquisitions)/divestments	0	0	0	0	0
Other	(2.6)	(2.5)	(2.1)	(2.1)	(2.2)
Funding available/(required)	**17.4**	**(10.1)**	**21.4**	**15.3**	**19.3**
Dividends paid	0	0	(3.4)	(3.4)	(6.9)
Equity raised/(returned)	0	0	0	0	0
(Increase)/decrease in net debt	**17.4**	**(10.1)**	**18.0**	**11.9**	**12.4**

Balance Sheet (NZ$m)	2022A	2023A	2024E	2025E	2026E
Working capital	65.8	84.1	77.2	82.8	90.4
Fixed assets	21.4	34.4	34.4	34.1	34.4
Intangibles	7.2	7.7	8.0	8.5	9.0
Right of use asset	4.8	3.4	11.1	13.8	11.4
Other assets	25.5	26.0	26.0	26.0	26.0
Total funds employed	**124.6**	**155.6**	**156.7**	**165.1**	**171.4**
Net debt/(cash)	(23.2)	(16.5)	(34.5)	(46.3)	(58.8)
Lease liability	3.4	2.5	10.4	13.3	11.1
Other liabilities	9.3	12.7	12.7	12.7	12.7
Shareholder's funds	135.2	156.9	168.0	185.4	206.3
Minority interests	0	0	0	0	0
Total funding sources	**124.6**	**155.6**	**156.7**	**165.1**	**171.4**

* Forsyth Barr target prices reflect valuation rolled forward at cost of equity less the next 12-months dividend** Information on Forsyth Barr's Carbon and ESG (CESG) ratings can be found at www.forsythbarr.co.nz/corporate-news-events/cesg-report

Spot valuation (NZ$)	**1.32**
DCF	1.44
PE driven comparables valuation	1.14

DCF valuation summary (NZ$m)	
Total firm value	357
(Net debt)/cash	17
Less: Capitalised operating leases	-44
Value of equity	329

Valuation Ratios	2022A	2023A	2024E	2025E	2026E
EV/Sales (x)	1.3	1.2	1.3	1.1	1.0
EV/EBITDA (x)	4.6	5.4	7.8	6.0	4.8
EV/EBIT (x)	5.6	6.7	11.6	8.1	6.0
PE (x)	7.3	10.4	16.5	11.5	8.7
Price/NTA (x)	1.9	1.6	1.5	1.4	1.2
Free cash flow yield (%)	7.3	-4.2	8.9	6.4	8.0
Adj. free cash flow yield (%)	11.5	3.6	12.0	9.4	11.5
Net dividend yield (%)	0.0	1.4	1.4	1.4	2.9
Gross dividend yield (%)	0.0	2.0	2.0	2.0	4.0

Capital Structure	2022A	2023A	2024E	2025E	2026E
Interest cover EBIT (x)	21.7	64.1	>100x	n/a	>100x
Interest cover EBITDA (x)	26.4	79.1	>100x	n/a	>100x
Net debt/ND+E (%)	-20.8	-11.7	-25.8	-33.3	-39.8
Net debt/EBITDA (x)	n/a	n/a	n/a	n/a	n/a

Key Ratios	2022A	2023A	2024E	2025E	2026E
Return on assets (%)	20.7	16.1	8.6	11.1	13.7
Return on equity (%)	24.5	14.8	8.7	11.2	13.4
Return on funds employed (%)	16.6	11.2	6.8	9.0	11.0
EBITDA margin (%)	29.0	22.8	16.6	18.7	20.7
EBIT margin (%)	23.9	18.4	11.1	13.8	16.3
Capex to sales (%)	5.9	10.3	4.4	3.8	3.8
Capex to depreciation (%)	143	286	100	98	110
Imputation (%)	0	100	100	100	100
Pay-out ratio (%)	0	15	24	16	25

Segment Revenue (NZ$m)	2022A	2023A	2024E	2025E	2026E
Telecommunications	86.0	101.6	94.5	112.4	129.3
Positioning	28.1	33.8	28.1	26.1	28.3
Space and Defence	24.5	28.9	31.2	37.8	44.6
IoT, Emerging and Other	33.4	17.0	17.3	17.7	18.0
Other revenues	2.5	0.4	0.0	0.0	0.0
Total Revenue	**174.5**	**181.7**	**171.1**	**194.0**	**220.2**

Segment Gross Margin (%)	2022A	2023A	2024E	2025E	2026E
Telecommunications	43.6	42.3	42.5	43.0	43.1
Positioning	58.4	53.5	52.5	53.0	54.0
Space and Defence	69.4	68.0	68.0	66.5	64.5
IoT, Emerging and Other	57.3	47.7	16.0	16.0	16.0

Segment Gross Margin (NZ$m)	2022A	2023A	2024A	2025A	2026A
Telecommunications	37.5	42.9	40.1	48.3	55.7
Positioning	16.4	18.1	14.7	13.8	15.3
Space and Defence	17.0	19.7	21.2	25.1	28.7
IoT, Emerging and Other	19.2	8.1	2.8	2.8	2.9

"Underlying EBITDA" (NZ$m)	2022A	2023A	2024A	2025A	2026A
Underlying EBITDA estimates	54.4	42.2	31.0	39.0	48.7

FY23 results review

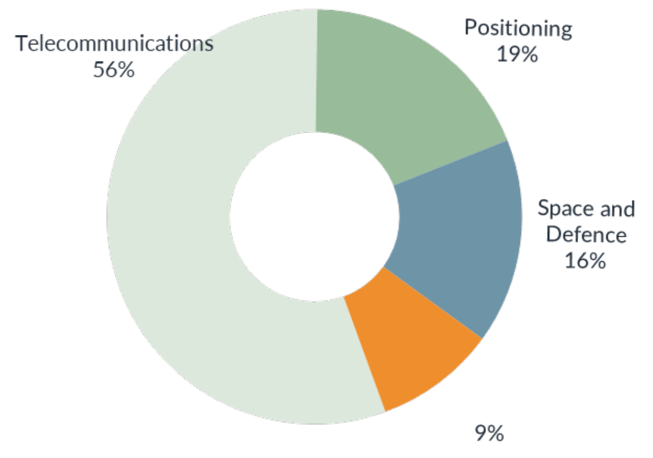
RAK's FY23 result showed continued strong growth in the core businesses; Telecommunications infrastructure, Space and Defence, and industrial Positioning. All three core divisions grew revenue and gross profit relative to FY22. Group revenue was up +5% to NZ$180.3m over FY23, but gross profit fell -1% to NZ$88.8m because of a -NZ$11.0m decrease in gross profit in RAK's Other division. Overall, underlying EBITDA (RAK's preferred metric) was NZ$42.2m, down -23% on the FY22 result. The prior period was boosted by one-off contracts on elevated margins. Regarding expenses, selling and marketing expenses rose +13%, while general and administrative expenses lifted +24% on restated FY22. RAK continued to invest in research and development in FY23, with NZ$17.0m (up +16% on restated FY22) spent in the year. In addition to operational activities, the result included a NZ$3.0m gain due to a portion of unhedged cash and receivables held in USD. This was partially offset by a -NZ$1.5m loss at the associates line. Reported net profit after tax fell -30% to NZ$23.2m. Operating cash flow was NZ$11.1m, down -NZ$19.1m from last year.

Figure 1. RAK — FY22 & FY23 results comparison

	FY22	FY23	Change
Revenue	**172.0**	**180.3**	**+5%**
Cost of sales	(81.9)	(91.5)	+12%
Gross Profit	**90.1**	**88.8**	**-1%**
Other operating income	1.6	0.4	-75%
Selling and marketing costs	(9.4)	(10.6)	+13%
Research and development	(14.7)	(17.0)	+16%
General and administration	(25.3)	(31.2)	+24%
Total operating expenses	(49.3)	(58.8)	+24%
Other gains/(losses) – net	(0.9)	3.0	n/a
Operating profit	41.4	33.3	-19%
Finance income	0.0	0.4	n/a
Finance costs	(1.9)	(0.9)	-54%
Share of net profits of associates	2.4	(1.5)	n/a
Profit before income tax	41.9	31.4	-25%
Income tax expense	(8.8)	(8.1)	-7%
Net profit after tax for the period	**33.1**	**23.2**	**-30%**
Profit before income tax	41.9	31.4	-25%
Depreciation and amortisation	(8.9)	(7.8)	-13%
Finance costs – net	(1.9)	(0.5)	-73%
Adjustments for associate share of interest, tax and depreciation	(2.2)	(2.1)	-5%
Other non-cash items	0.5	(0.4)	n/a
Underlying EBITDA	**54.4**	**42.2**	**-23%**

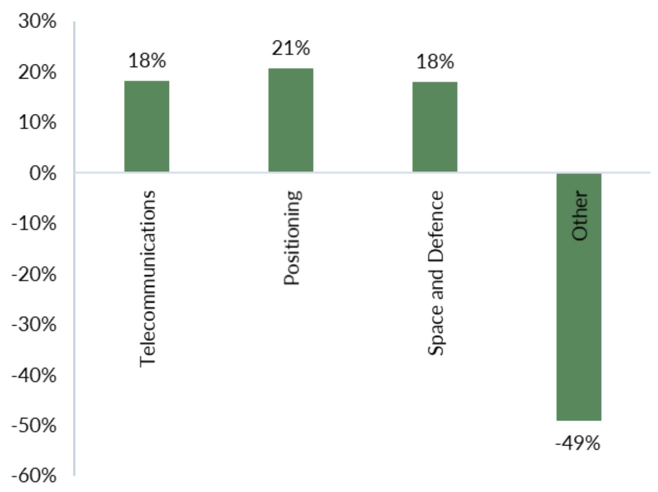
Source: Company data, Forsyth Barr analysis

Figure 2. RAK — revenue by division (FY23)



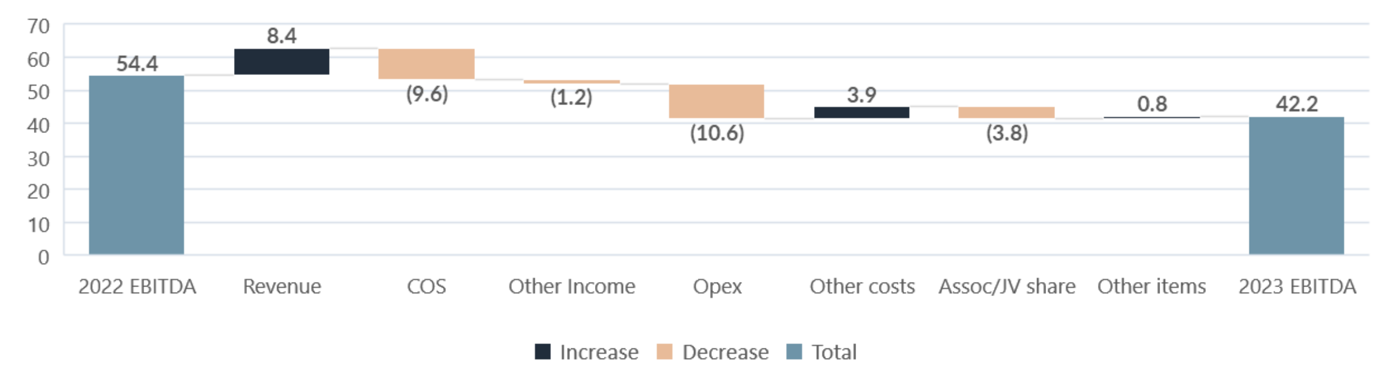
Source: Company data, Forsyth Barr analysis

Figure 3. RAK — Revenue growth by division (FY23)



Source: Company data, Forsyth Barr analysis

Figure 4. RAK — Underlying EBITDA bridge FY22 to FY23 (NZ$m)



Source: Company data, Forsyth Barr analysis

Earnings revisions

Given RAK's FY24 underlying EBITDA guidance of between NZ$26m and NZ$34, we downgrade our near-term forecasts as the operating environment continues to be more challenging than anticipated. We reduce our FY24 revenue expectation by -3% to reflect the impact of the "*industry-wide normalisation of inventory among customers*" called out in management's outlook commentary. We lower our FY25 and FY26 revenue estimates by -4% and -1% respectively, as they grow off a lower base and are likely also affected by the industry's inventory correction. Our underlying EBITDA forecast falls by -12% in FY24, -10% in FY25 and -7% in FY26 on lower revenues and small gross margin contractions due to dis-economies of scale. At the bottom line, our NPAT estimates decline by -13% in FY24 and FY25 and by -3% in FY26. We forecast a return to profitability (+NZ$0.5m) in RAK's associates line (Timemaker) in FY24 after a surprising loss in FY23. We anticipate a flat NZ1.5cps fully imputed dividend (paid as a final) over FY24 and FY25 before we see dividend growth.

Figure 5. RAK — Earnings revisions (NZ$)

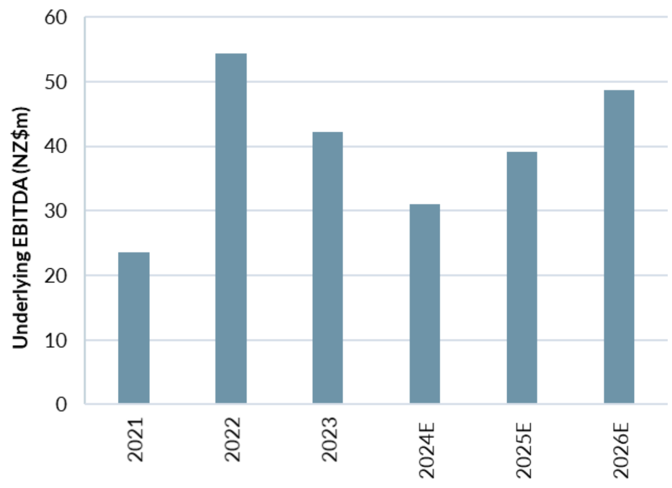
	FY24E			FY25E			FY25E		
	Old	New	Change	Old	New	Change	Old	New	Change
Revenue	**176.5**	**171.1**	**-3%**	**201.7**	**194.0**	**-4%**	**222.7**	**220.2**	**-1%**
Cost of sales	(93.2)	(92.2)	-1%	(106.2)	(103.9)	-2%	(117.0)	(117.6)	+1%
Gross Profit	83.2	78.9	-5%	95.5	90.1	-6%	105.7	102.7	-3%
Selling and marketing costs	(10.6)	(11.1)	+5%	(10.9)	(11.4)	+5%	(11.2)	(11.7)	+5%
Research and development	(17.8)	(17.3)	-3%	(20.6)	(19.8)	-4%	(22.5)	(22.2)	-1%
General and administration	(33.6)	(31.5)	-6%	(34.2)	(32.2)	-6%	(34.9)	(32.8)	-6%
Total operating expenses	(62.0)	(59.9)	-3%	(65.7)	(63.4)	-4%	(68.6)	(66.8)	-3%
Other gains/(losses)-net	-	-		-	-		-	-	
Operating profit	21.3	19.0	-11%	29.7	26.8	-10%	37.1	35.9	-3%
Finance income	1.3	0.5	n/a	2.0	0.7	n/a	0.1	0.4	n/a
Finance costs	(0.8)	(0.6)	n/a	(0.7)	(0.7)	n/a	(0.6)	(0.6)	n/a
Share of net profits of associates	0.5	0.5	+0%	1.0	1.0	+0%	1.7	1.3	-22%
Profit before income tax	22.3	19.5	-13%	32.1	27.8	-13%	38.3	37.0	-3%
Income tax expense	(5.6)	(4.9)	-13%	(8.0)	(6.9)	-13%	(9.6)	(9.2)	-3%
Net profit for the period	**16.7**	**14.6**	**-13%**	**24.1**	**20.8**	**-13%**	**28.7**	**27.7**	**-3%**
Profit before income tax	22.3	19.5	-13%	32.1	27.8	-13%	38.3	37.0	-3%
Depreciation and amortisation	(9.8)	(9.4)	n/a	(9.9)	(9.6)	n/a	(10.1)	(9.7)	n/a
Finance costs – net	0.5	(0.0)	n/a	1.3	0.0	n/a	(0.5)	(0.3)	n/a
Adjustments for associate share of interest, tax and depreciation	(2.7)	(1.6)	n/a	(2.0)	(1.3)	n/a	(2.4)	(1.3)	n/a
Other non-cash items	(0.8)	(0.4)	n/a	(0.9)	(0.4)	n/a	(0.8)	(0.5)	n/a
Underlying EBITDA	**35.1**	**31.0**	**-12%**	**43.5**	**39.0**	**-10%**	**52.1**	**48.7**	**-7%**

Source: Company, Forsyth Barr analysis

Figure 6. RAK — Revenues (NZ$m)

Source: Company data, Forsyth Barr analysis

Figure 7. RAK — Underlying EBITDA (NZ$m)

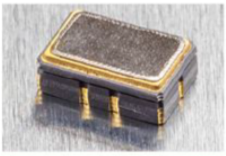
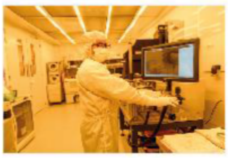


Source: Company data, Forsyth Barr analysis

Three-year growth roadmap

RAK provided an update on its three-year roadmap in Figure 8 below.

Figure 8. RAK's updated three-year roadmap

		FY23	FY24	FY25
	NEW MANUFACTURING FACILITY IN INDIA	• Construction completed • Fitout / capacity expansion • Existing manufacturing transfer ✓	• Select NZ products transferred • Select NewSpace products transferred	• Select French NewSpace subsystem modules transferred
	RAKON DESIGNED SEMICONDUCTOR CHIPS	• Substantial increase in R&D and chip design capability • Release of Niku™ next generation chip ✓	• Release of Vulcan™ next generation chip • Chip based product revenue growing to over 60%	• Chip based product revenue growing • Release of next generation chips
	XMEMS® NANOTECHNOLOGY MANUFACTURING	• Continued investment in XMEMS® capability • Release of initial XMEMS® based products ✓	• Volume production of XMEMS®	• Leadership in targeted market segments • Expansion into other product categories
	NEWSPACE BUSINESS	• R&D and supply chain investment • Strategic relationships established ✓	• Recognised player in the ecosystem • Significant orders secured	• Become a top 3 player in subsystems • Delivery of orders

Source: Company

Appendices

Sector outlook — frequency control and timing devices market

The global frequency control and timing devices market is projected to see a compound annual growth rate (CAGR) of +9% from 2022–2027. This growth is likely to be positively and negatively influenced by several factors.

The global market faced significant headwinds due to the COVID-19 pandemic. Supply chain disruptions brought about by lockdown measures and factory shutdowns severely impacted the production of these devices in 2020 and 2021. Many factories had to halt operations or reduce their capacity, resulting in suppliers struggling to meet demand due to limited production. These issues were particularly acute in the electronics industry, where the scarcity of raw materials for crystal and MEMS oscillators further compounded the problem. As a result, there was a noticeable effect on the market's growth rate.

The situation was exacerbated by many automotive companies such as Honda, Ford, Toyota, BMW, and GM reducing production outputs of new vehicles or even stopping production lines entirely due to a shortage of automotive-grade semiconductors. This production reduction was a response to the semiconductor shortage and a strategy to manage their inventory levels. Furthermore, recent trends have indicated a pullback in consumer demand, meaning the demand surplus has led to a production excess. As consumers adjust to the ongoing challenges posed by the pandemic and a slowdown in economies, customers exposed to these segments have been curtailing orders to control their inventory levels. This shift in customer behaviour has added another layer of complexity to the market dynamics, leading to an overall contraction in demand. It is difficult to say when supply and demand dynamics will regain balance in the global frequency control and timing devices and semiconductor market. The market faces several challenges, including the rising cost of raw materials, the shortage of skilled labour, and the increasing competition from Chinese manufacturers. These challenges are likely to continue to impact the market in coming years.

Despite these challenges, several technological drivers have worked to support the market. The demand for AI, EVs, data centre capability, 5G infrastructure, industrial positioning, aerospace and the Internet of Things (IoT) have seen increased use of frequency control devices. Automotive system developers and aerospace companies are increasingly using higher-end resonators and oscillator timing solutions that resist shock and vibration issues. This trend aligns with the growing requirement for high-clocking and low-jitter reference clocks due to the advent of Advanced Driver Assistance Systems (ADAS).

SiTime (SITM) — 1Q23 result

SiTime Corporation (SITM) reported its latest 1Q23 results on 3 May 2023. The company reported revenue of US$38.3m, a -37.0% decrease from the US$60.8m in 4Q22. Non-GAAP gross margins were US$23.7m or 61.8% of revenue. Non-GAAP (excluding stock-based compensation) net income was +US$2.0m or EPS of US$0.09 per share. Several factors, including the ongoing global chip shortage, the war in Ukraine and the slowdown in the global economy impacted the company's latest quarterly results. On pricing, management noted, "*despite lower revenues and better availability from quartz competitors, our average selling prices (ASPs) have remained stable*". Over the quarter the company spent US$16.4m on research and development (R&D). Its inventory at the end of the quarter was US$60m, up from US$57.7m last quarter. The company ended the quarter with US$576m in cash.

SiTime remained optimistic about its long-term prospects. The company believes its products are well-positioned to benefit from the growing demand for timing solutions in various applications. Forward-looking statements from management included: "*we now believe the revenue cycle will be deeper and more prolonged than we had previously thought*", and, "*previously, we had expected Q2 revenue to be equal to or modestly higher than Q1. We now expect Q2 revenue will be lower than Q1*", or, "*between US$25m to US$28m*". However, "*the previous guidance for lower first half 2023 and higher second half 2023 remains intact. This revenue drop in previously forecasted demand is in three areas, data center, automotive, and broad-based. We believe that the slowdown in macroeconomic conditions has had an impact on all of these three areas*". Gross margins are expected to be between 56% and 58% in 2Q23. Speaking about inventory, management said, "*while inventory continues to decline because of lower demand, it has not declined at the rate that we previously expected. We now forecast that customer and channel inventories will return to a normal level by the end of 2023. Second half revenue will be higher because of higher demand, though likely not of the magnitude that we previously believed*". On long-term segment growth, the CEO said, "*We continue to forecast an acceleration in 2024 and 2025 based on four key indicators, SAM expansion from new products, design wins, continued single source business, and expanding ASPs or average selling prices*". SITM expect 2Q23 to see it trade at a non-GAAP net income loss of between US$0.25 and US$0.35 per share.

SiTime is a global provider of silicon precision timing solutions. The company's products are used in various applications, including communications and enterprise, automotive, industrial, aerospace, mobile, IoT, and consumer. SiTime's products provide high-performance, low-power, and high-reliability timing solutions. On the quarterly call, SITM's CEO said, "*In electronics, timing is ubiquitous and ensures reliable functioning. SiTime created precision timing to service the needs of applications like automated driving, data centre, 5G, and IoT. We are early in our growth as we transform the US$10 billion timing market and SiTime has shipped 3 billion precision timing chips to 15,000 customers in 300 applications*". More information can be found here.

MicroChip Technology (MCHP) — 4Q23 and FY23 result

MCHP reported its 4Q23 and FY23 results on 4 May 2023, achieving record performance across key metrics. Revenue for 4Q23 of US$2.2b (+2.9% QoQ, +21.1% YoY) and FY23 of US$8.4b (+23.7%) were the highest in the company's history. Similarly, the company printed record profitability at a gross margin (68.3% for the quarter and 67.8% for the year) and operating margin (47.6% and 46.9%). EPS for the quarter of US$1.64 brought total EPS for FY23 to US$6.03, up +32% and another record. These impressive numbers allowed Microchip to complete US$1.6b worth of capital returns to shareholders in FY23 via repurchases of US$946m and dividends of US$695m. As part of the 4Q23 and FY23 results, MCHP announced several initiatives, including:

- "*A US$800m, multi-year initiative aiming to triple semiconductor production at our Oregon facility.*"
- "*Plans to invest US$880m to expand our Silicon Carbide (SiC) and Silicon (Si) capacity in our Colorado facility.*"
- "*An all-in-one hybrid power drive module designed for electric aviation applications to reduce development time and weight.*"

MCHP's products enable efficient control, monitoring, and connectivity across various applications, including automotive, industrial, consumer, networking, computing and communications. The company is headquartered in Chandler, Arizona. MCHP's CEO and President commented, "*we are very pleased with our strong financial and operational performance throughout fiscal 2023 as we continued to deliver on our Microchip 3.0 strategy*". The Microchip 3.0 strategy includes targets of five-year organic revenue CAGR of 10–15% from FY21, 67.5–68.5% gross margin and 44–46% operating margin. The CEO said the business was, "*well-positioned to respond to growth when the macro environment strengthens*". He added that, "*longer-term, our total systems solutions strategy combined with our focus on key market megatrends is driving a robust pipeline of new-design opportunities, and we plan to introduce an exciting lineup of innovative new products through fiscal 2024 to address the growing demand for our solutions*". More information can be found here.

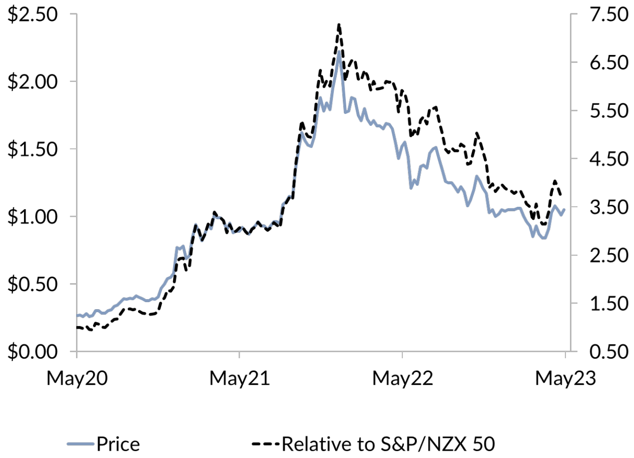
Micron Technology (MU) — 2Q23 earnings and Chinese ban

Micron, a leading semiconductor memory and storage company, released its financial results for 2Q23 on 28 March 2023, underlining a challenging operating environment. The company noted a sequential decline in revenue of -10%, equating to revenues of ~US$3.7b and a year-over-year decline of -53%. The revenue results landed within MU's guidance range. The deterioration in revenue was attributed to weak pricing and profitability in the semiconductor memory and storage industry, leading to a Non-GAAP net loss of US$2.1b for the quarter, excluding the impact of inventory write-downs (-US$1.4b).

Adding to these challenges, China's Cyberspace Administration on 22 May 2023 banned the purchase of Micron's products on the grounds of posing "*serious network security risks*". This substantial action, marking the first significant measure against an American semiconductor group, comes amidst heightening tensions between China and the US and follows a seven-week investigation into Micron by the CAC. The Chinese move follows moves starting in 2021, when the United States, under the Biden administration, initiated aggressive measures against China's semiconductor industry by signing the **CHIPS and Science Act**, a US$52.7b industrial policy designed to augment research, amplify supply chain resilience, and rejuvenate semiconductor production domestically. In October 2022, the administration imposed the most stringent restrictions yet on China's chip manufacturing sector, hampering the sale of advanced chips to China and effectively depriving it of the computing power necessary for large-scale artificial intelligence training, while also intensifying restrictions on chip-making tools to industries supporting the semiconductor supply chain, thus denying both U.S. expertise and critical components. On 19 May 2023, Montana Governor Greg Gianforte instituted a law banning **TikTok** in the state, marking the first legal and operational challenge of broader attempts to limit access to the popular video-sharing app in the US. This law, which is expected to face legal opposition on the grounds of free speech and regulations singling out a specific company, will have broad implications for congressional efforts to prohibit TikTok's US operations due to fears of user data sharing with China, the home base of parent company ByteDance.

Despite facing the industry's worst downturn in 13 years, Micron is optimistic about a gradual improvement in the supply-demand balance and a transition to sequential revenue growth in its quarterly results. The company has implemented sizeable supply reduction and austerity measures, including a company-wide reduction in force. Micron remains confident in its strong technology position, deep manufacturing expertise, robust product portfolio, solid balance sheet, and highly skilled team. Beyond the current downturn, the company anticipates a return to normalised growth and profitability in line with its long-term financial model.

Figure 9. Price performance



Source: Forsyth Barr analysis

Figure 10. Substantial shareholders

Shareholder	Latest Holding
Siward Crystal Technology	12.2%
Ahuareka Trust	10.9%
Wairahi Investments and Wairahi Holdings Limited	5.1%

Source: NZX, Forsyth Barr analysis, NOTE: based on SPH notices only

Figure 11. International valuation comparisons

Company	Code	Price	Mkt Cap	PE		EV/EBITDA		EV/EBIT		Cash Yld
(metrics re-weighted to reflect RAK's balance date - March)			(m)	2024E	2025E	2024E	2025E	2024E	2025E	2025E
Rakon	**RAK NZ**	**NZ$1.05**	**NZ$241**	**16.5x**	**11.5x**	**n/a**	**n/a**	**n/a**	**n/a**	**1.4%**
Txc Corp	3042 TT	TWD86.70	TWD26,856	12.0x	11.0x	6.7x	5.9x	10.4x	9.0x	n/a
Sitime Corp	SITM US	US$94.94	US$2,084	>75x	69.4x	<0x	>75x	<0x	67.8x	n/a
Microchip Technology Inc	MCHP US	US$77.87	US$42,657	12.4x	12.1x	10.9x	11.2x	11.8x	11.8x	2.4%
Siward Crystal Technology Co	2484 TT	TWD34.80	TWD5,548	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Daishinku Corp	6962 T	¥670.00	¥24,252	9.0x	n/a	4.1x	n/a	9.0x	n/a	n/a
Nihon Dempa Kogyo Co	6779 T	¥1273.00	¥29,443	5.7x	n/a	4.3x	n/a	6.6x	n/a	n/a
Seiko Epson Corp	6724 JP	¥2133.00	¥821,253	10.8x	10.2x	4.9x	4.8x	8.5x	8.1x	3.6%
			Compco Average:	**10.0x**	**25.7x**	**6.2x**	**7.3x**	**9.3x**	**24.2x**	**3.0%**
EV = Mkt cap+net debt+lease liabilities+min interests-investments			**RAK Relative:**	**65%**	**-55%**	**n/a**	**n/a**	**n/a**	**n/a**	**-52%**

Source: *Forsyth Barr analysis, Bloomberg Consensus, Compco metrics re-weighted to reflect headline (RAK) companies fiscal year end

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