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TECHNOLOGY

ELECTRONIC EQUIPMENT & PARTS

Rakon Limited

Launching into the LEO NewSpace Market

JAMES LINDSAY

James.Lindsay@forsythbarr.co.nz +64 9 368 0145 WILL TWISS

will.twiss@forsythbarr.co.nz

+64 9 368 0129

Rakon (RAK) has announced a NZ\$17m three-year contract with an unnamed 'global leader in communications satellites', to supply its Master Reference Oscillator (MRO) space subsystems for a new Low Earth Orbit (LEO) satellite constellation. RAK's recent product launches in frequency control and timing solutions aim to position the company to capitalise on this new sector of the space market. We forecast the Space and Defence segment to be an important growth driver for RAK, representing ~25% of our FY24 revenue estimates, and growing at an +18% CAGR between FY23 and FY28. Products such as the GNSS receivers, Master Reference Oscillators, and Ultra Stable Oscillators are critical for the functionality and success of these satellite networks, with precision timing vital for the synchronisation required in LEO satellite communications. The LEO satellite market is experiencing a transformative phase, poised to redefine global internet connectivity. Here in NZ, both One NZ (part of IFT) and Spark (SPK) have announced intentions to introduce satellite-to-mobile services shortly, first for emergency text messages and, in the future, for data and voice offerings that use these new generation of LEO satellites. RAK is due to report its FY24 result on 29 May 2024. Our estimates and spot valuation remain unchanged, given our estimates already anticipated a LEO contract win.

NZX Code	RAK	Financials: Mar/	23A	24E	25E	26E	Valuation (x)	23A	24E	25E	26E
Share price	NZ\$0.97	Rev (NZ\$m)	180.7	141.8	158.5	188.6	PE	9.6	50.1	21.2	11.5
Spot Valuation	NZ\$0.98	NPAT* (NZ\$m)	23.2	4.5	10.6	19.6	EV/EBIT	n/a	n/a	n/a	n/a
Risk rating	High	EPS* (NZc)	10.1	1.9	4.6	8.5	EV/EBITDA	n/a	n/a	n/a	n/a
Issued shares	229.9m	DPS (NZc)	1.5	1.5	1.5	1.5	Price / NTA	1.5	1.5	1.4	1.3
Market cap	NZ\$223m	Imputation (%)	100	100	100	100	Cash div yld (%)	1.5	1.5	1.5	1.5
Avg daily turnover	89.7k (NZ\$89k)	*Based on normalised profits					Gross div yld (%)	2.1	2.1	2.1	2.1

NewSpace contract win

RAK's largest space contract win to date positions it among the top global suppliers of space subsystem products. The NZ\$17m deal will assist RAK in achieving our growth expectations in the Space and Defence segment, where we forecast revenue growth of +8%, +19%, and +13% over FY25, FY26, and FY27, respectively. This deal will provide ~NZ\$3m of FY25 revenues, and we assume NZ\$8m in FY26, and NZ\$6m in FY27 revenues. We do not change our forecasts, having anticipated a LEO contract win in our estimates.

LEO market expanding as global internet connectivity is reshaped ... prominent constellations include:

- SpaceX's <u>Starlink</u>: has already deployed over 60% of the 7,500 satellites orbiting Earth. Starlink's rapid deployment is supported by SpaceX's launch programme, and the company has stated that it is already cash flow breakeven, with >2.7m subscribers.
- Amazon's <u>Kuiper</u>: comprising a constellation of 3k satellites, successfully launched its prototype satellites on 6 October 2023, and aims to provide service to its earliest customers by the end of 2024. Project Kuiper (a name inspired by the Kuiper Belt, the celestial area located beyond the main eight planets of the solar system) aims to provide high-speed, low-latency broadband internet services across the globe.
- OneWeb: although smaller than competitors, it aims at a similar niche. Following financial hurdles and its acquisition by the UK government and Bharti Global, OneWeb has refocused, aiming for a 648 satellite constellation. The group was formed by the September merger of France's Eutelsat and Britain's OneWeb, and is the world's third-biggest satellite operator by revenue.
- **Telesat's Lightspeed**: an enterprise-class network of 198 state-of-the-art LEO satellites integrated with terrestrial data networks. Telesat aims to transform global communication with its high-performance, next-generation satellite technology.



Rakon Limited (RAK)

Market Data (NZ\$)						Spot valuation (NZ\$)					0.98
Priced as at 15 May 2024					0.97	DCF					0.95
52 week high / low	1.31/0.59			PE driven comparables valuation					1.03		
Market capitalisation (NZ\$m)					222.8	••••					
Key WACC assumptions						DCF valuation summary (NZ\$m)					
Risk free rate					5.00%	Total firm value					235
Equity beta					1.35	(Net debt)/cash					16
WACC					11.7%	Less: Capitalised operating leases					-29
Terminal growth					2.0%	Value of equity					223
Profit and Loss Account (NZ\$m)	2022A	2023A	2024E	2025E	2026E	Valuation Ratios	2022A	2023A	2024E	2025E	2026E
Revenue	173.6	180.7	141.8	158.5	188.6	EV/Sales (x)	1.2	1.1	1.5	1.4	1.2
Normalised EBITDA	50.4	41.1	13.3	22.1	34.0	EV/EBITDA (x)	4.2	5.0	16.2	10.1	6.5
Depreciation and amortisation	(8.9)	(7.8)	(7.2)	(8.3)	(8.7)	EV/EBIT (x)	5.1	6.2	35.2	16.1	8.8
Normalised EBIT	41.4	33.3	6.1	13.8	25.3	PE (x)	6.7	9.6	50.0	21.1	11.4
Net interest	(1.9)	(0.5)	(0.3)	(0.5)	(0.5)	Price/NTA (x)	1.7	1.5	1.5	1.4	1.3
Associate income	2.4	(1.5)	0.1	0.8	1.3	Free cash flow yield (%)	7.8	-4.5	-1.1	4.3	3.1
Tax	(8.8)	(8.1)	(1.5)	(3.5)	(6.5)	Adj. free cash flow yield (%)	12.4	3.9	6.6	10.8	6.0
Minority interests	0	0	0	0	0	Net dividend yield (%)	0.0	1.5	1.5	1.5	1.5
Normalised NPAT	33.1	23.2	4.5	10.6	19.6	Gross dividend yield (%)	0.0	2.1	2.1	2.1	2.1
Abnormals/other	0	0	0	0	0						
Reported NPAT	33.1	23.2	4.5	10.6	19.6	Capital Structure	2022A	2023A	2024E	2025E	2026E
Normalised EPS (cps)	14.5	10.1	1.9	4.6	8.5	Interest cover EBIT (x)	21.7	64.1	21.1	30.4	54.4
DPS (cps)	0	1.5	1.5	1.5	1.5	Interest cover EBITDA (x)	26.4	79.1	45.7	48.8	73.2
						Net debt/ND+E (%)	-20.8	-11.7	-7.6	-12.1	-12.1
Growth Rates	2022A	2023A	2024E	2025E	2026E	Net debt/EBITDA (x)	n/a	n/a	n/a	n/a	n/a
Revenue (%)	32.7	4.1	-21.6	11.8	18.9						
EBITDA (%)	>100	-18.3	-67.6	66.3	53.9	Key Ratios	2022A	2023A	2024E	2025E	2026E
EBIT (%)	>100	-19.5	-81.6	>100	83.4	Return on assets (%)	20.7	16.1	2.9	6.3	10.8
Normalised NPAT (%)	>100	-29.9	-80.8	>100	85.5	Return on equity (%)	24.5	14.8	2.8	6.4	10.7
Normalised EPS (%)	>100	-29.9	-80.9	>100	85.0	Return on funds employed (%)	16.6	11.2	2.1	4.9	8.6
Ordinary DPS (%)	n/a	n/a	0.0	0.0	0.0	EBITDA margin (%)	29.0	22.8	9.4	14.0	18.1
						EBIT margin (%)	23.9	18.4	4.3	8.7	13.4
Cash Flow (NZ\$m)	2022A	2023A	2024E	2025E	2026E	Capex to sales (%)	5.9	10.3	12.0	9.2	3.4
EBITDA	50.4	41.1	13.3	22.1	34.0	Capex to depreciation (%)	143	286	277	201	84
Working capital change	(15.3)	(18.2)	5.1	7.3	(12.9)	Imputation (%)	0	100	100	100	100
Interest & tax paid	(2.3)	(10.5)	(1.8)	(4.0)	(7.0)	Pay-out ratio (%)	0	15	77	33	18
Other	(2.6)	(1.3)	0.1	0.8	1.3						
Operating cash flow	30	11.1	16.7	26.2	15.5	Segment Revenue (NZ\$m)	2022A	2023A	2024E	2025E	2026E
Capital expenditure	(10.2)	(18.7)	(17.0)	(14.5)	(6.3)	Telecommunications	86.0	101.6	78.7	89.7	107.7
(Acquisitions)/divestments	0	0	0	0	0	Positioning	28.1	33.8	18.3	21.0	25.6
Other	(2.6)	(2.5)	(2.1)	(2.1)	(2.2)	Space and Defence	24.5	28.9	35.4	38.2	45.5
Funding available/(required)	17.4	(10.1)	(2.4)	9.6	7.0	IoT, Emerging and Other	33.4	17.0	9.4	9.5	9.7
Dividends paid	0	0	(2.9)	(2.9)	(5.2)	Other revenues	-1.0	0.4	0.0	0.0	0.0
Equity raised/(returned)	0	0	0	0	0	Total Revenue	171.0	181.7	141.8	158.5	188.6
(Increase)/decrease in net debt	17.4	(10.1)	(5.3)	6.7	1.8						
Balance Sheet (NZ\$m)	2022A	2023A	2024E	2025E	2026E	Segment Gross Margin (%) Telecommunications	2022A 43.6	2023A 42.3	2024E 37.0	2025E 41.0	2026E 41.5
Working capital	65.8	84.1	79.0	71.7	84.6	Positioning	58.4	53.5	47.8	44.0	45.0
Fixed assets	21.4	34.4	45.2	52.5	50.9	Space and Defence	69.4	68.0	62.0	66.0	64.5
Intangibles	7.2	7.7	8.3	9.0	9.9	IoT, Emerging and Other	57.3	47.7	54.0	49.0	49.0
Right of use asset	4.8	3.4	12.2	15.5	13.8	io i, Emoi ging and Other	37.3	77.7	J4.U	+ 7.0	+ 7.0
Other assets	25.5	26.0	26.0	26.0	26.0	Segment Gross Margin (NZ\$m)	2022A	2023A	2024E	2025E	2026E
Total funds employed	124.6	155.6	170.8	174.7	185.2						
Net debt/(cash)	(23.2)	(16.5)	(11.2)	(17.9)	(19.7)	Telecommunications	37.5	42.9	29.1	36.8	44.7
Lease liability	3.4	2.5	10.9	13.8	11.6	Positioning Space and Defence	16.4	18.1	8.7	9.2	11.5
Other liabilities	9.3	12.7	12.7	12.7	10.4	Space and Defence	17.0	19.7	22.0	25.2	29.4
Shareholder's funds	135.2	156.9	158.4	166.1	182.8	IoT, Emerging and Other	19.2	8.1	5.1	4.7	4.8
Minority interests	133.2	130.9	136.4	0	0	III la deul des EDITO AII (N. 74)	20224	20224	20245	20255	2027
Total funding sources	124.6	155.6	170.8	174.7	185.2	"Underlying EBITDA" (NZ\$m)	2022A	2023A	2024E	2025E	2026E
* Foresth Pare target prices	IZ4.0	133.0	1/U.O	L/4./	+ 10	Underlying EBITDA estimates	54.4	42.2	13.9	24.1	37.1

^{*} 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



Where do RAK's NewSpace products fit?

RAK's recent advancements in Global Navigation Satellite System Receivers (GNSS), Master Reference Oscillators (MRO), and Ultra Stable Oscillators (USO) underscore its significant role in the NewSpace industry. These high-reliability components are integral for Low Earth Orbit (LEO) satellite constellations, which are increasingly being deployed for global communication and observation purposes.

The company's GNSS receivers, designed for LEO satellite constellations, are cutting-edge in terms of both technology and form factor. RAK has released two new GNSS receivers as part of its NewSpace equipment portfolio, which are pivotal for accurate positioning and navigation in space. These receivers are capable of tracking multiple satellite systems, thereby enhancing reliability and precision. The small form factor GNSS receiver, particularly, is a testament to RAK's innovation, catering to the demand for compact yet powerful solutions in satellite technology. Its use also includes any satellite platform to provide the Positioning, the Velocity, and the Timing to the satellite, as well as LEO PNT payloads with the support of RAK's Ultra Stable Oscillators.

RAK's Master Reference Oscillator (MRO) is another core product. This high-reliability space equipment offers a remarkable stability of 100 parts per billion over 20 years. Such stability is crucial for communication satellites, ensuring consistent performance over extended periods. The MRO's longevity and precision make it a high-end choice for long-duration space missions. MRO's are used for telecom payloads into Non-Geostationary Orbit (NGSO) constellations, which are either Low-Earth-Orbit (LEO) or Medium-Earth-Orbit (MEO) satellites.

The Ultra Stable Oscillator (USO) launched by RAK for LEO Positioning, Navigation, and Timing (PNT) satellite constellations represents the pinnacle of oscillator technology. It boasts best-in-class Allan Deviation, a critical parameter for measuring stability in frequency control devices. This USO is essential for missions that demand high precision in frequency and timing, ensuring that satellite constellations maintain the accuracy required for complex navigation and timing tasks.

RAK's impact is not just limited to the technological sphere but extends to practical applications as well. This is exemplified by Turkey's first private Earth observation satellite, which was launched with a RAK GNSS receiver onboard. Such milestones reflect the trust and reliance global satellite programmes place on RAK's components.

Master Reference/Local Oscillators **Ultra Stable Oscillators** PLO NS LN RK409NS MRO NS PLO NS 1PPS RK409AVNS PLO-S NS (SAW) Rakon Solutions for NewSpace RK508NS **RK205 GNSS** IOT Receiver DB RK406NS **RK105 Payload GNSS Receiver** SINGLE/DUAL RK300NS Clock Drivers S-Band RK200NS Transceiver Low Power & Low Noise Oscillators Equipment

Figure 1. RAK — Equipment & oscillators for NewSpace

Source: Company



RAK's Space and Defence segment, representing \sim 25% of estimated FY24 revenues, has demonstrated robust recent growth, with revenue increasing by +24% to NZ\$15.3m in 1H24. RAK attributed this increase to the expansion of the traditional space market, broadening its product portfolio into higher value subsystems and equipment, and a rise in demand across all products. The segment's gross profit also grew by +12% to NZ\$9.6m, representing a gross margin of 66.3%, below the FY23 gross margin of 68.0%.

Figure 2. RAK — Space and Defence revenues (half years)

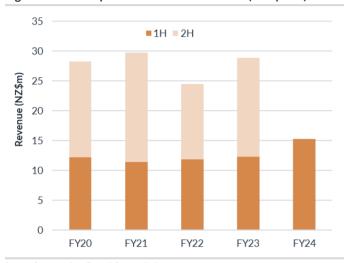
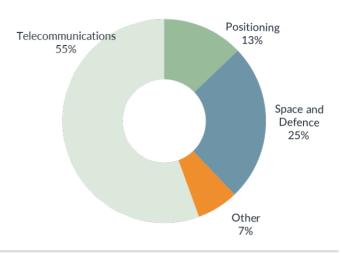


Figure 3. RAK - Revenue by division (FY24 estimate)



Source: Company data, Forsyth Barr analysis

Source: Company data, Forsyth Barr analysis



Figure 4. Price performance



Source: Forsyth Barr analysis

Figure 5. Substantial shareholders

Shareholder	Latest Holding
Brent John Robinson	15.2%
Siward Crystal Technology	12.2%
Wairahi Investments and Wairahi Holdings Limited	6.1%

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

Figure 6. International valuation comparisons

Company	Code	Price	Mkt Cap	PE		EV/EBITDA		EV/EBIT		Cash Yld
(metrics re-weighted to reflect RAK's	(m)	2024E	2025E	2024E	2025E	2024E	2025E	2025E		
Rakon	RAK NZ	NZ\$0.97	NZ\$223	50.1x	21.2x	n/a	10.1x	n/a	16.1x	1.5%
Txc Corp	3042 TT	TWD110.50	TWD34,228	19.3x	n/a	10.2x	n/a	n/a	n/a	n/a
Sitime Corp	SITMUS	US\$123.15	US\$2,817	26.0x	>50x	26.7x	>75x	<0x	<0x	n/a
Microchip Technology Inc	MCHP US	US\$91.50	US\$49,445	26.0x	34.6x	13.2x	25.7x	21.4x	29.9x	2.1%
Siward Crystal Technology Co	2484 TT	TWD32.00	TWD5,101	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Daishinku Corp	6962 T	¥819.00	¥29,645	16.5x	17.6x	7.3x	5.8x	23.4x	15.9x	3.4%
Nihon Dempa Kogyo Co	6779 T	¥1253.00	¥28,980	10.3x	7.4x	5.7x	4.7x	9.9x	7.7x	2.2%
Seiko Epson Corp	6724 JP	¥2514.50	¥968,139	15.8x	14.3x	6.7x	5.6x	14.7x	10.7x	3.0%
			Compco Average:	19.0x	18.5x	11.6x	10.5x	17.4x	16.1x	2.7%
EV = Mkt cap+net debt+lease liabiliti	RAK Relative:	164%	15%	n/a	-4%	n/a	0%	-42%		

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



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