Connectivity, Anytime, Anywhere

Rakon is a global high technology company and a world leader in its field. The company designs and manufactures advanced frequency control and timing solutions. Precise timing is required for demanding applications within Rakon's three core markets of Telecommunications, Space & Defence and Positioning.

All communication and location systems require a precise electronic 'heart beat' or frequency reference. Rakon's advanced clocking solutions provide extremely accurate electrical signals, which are then used to generate precise electrical, radio or optical signals in systems and extreme environments everywhere.

Rakon's products help set the frequency that all communications transmit and receive on. They also hold time and provide a stable timing reference for electronic equipment around the world. This enables synchronised time globally, and the efficient and reliable transfer of data at ever-increasing precision and speed.

Rakon was founded in Auckland in 1967. It is a public company listed on the New Zealand stock exchange, NZSX ticker code RAK.

Three Year Performance Snapshot

NZ\$ Millions	FY2021	FY2020	FY2019
Revenue	128.3	119.0	114.0
Underlying EBITDA ¹	23.5	14.8	13.3
Net profit/(loss) after tax	9.6	4.0	3.4
Earnings per share (cents)	4.2	1.8	1.5
Operating cash flow	20.0	9.4	(1.8)
Capital expenditure	5.1	4.6	7.1
Net cash/(debt)	5.0	(7.9)	(7.7)

Our Global Footprint

Strategic Focus

Rakon is focused on generating shareholder and stakeholder value. Its core focus is on delivering higher value, technologically advanced products that enable connectivity for current and emerging applications. With a customer portfolio of global leaders in their respective markets, Rakon's strengths lie in its disruptive technologies coupled with comprehensive application knowledge enabling next generation technologies.

Financial Year 2021 12 months ended 31 March 2021.

All amounts in this document are in NZ\$ unless otherwise specified.

TOTAL REVENUE









¹ Definition of Underlying EBITDA: Rakon has used 'Underlying EBITDA' as a non-gap financial measure in this document. Underlying EBITDA is defined as 'Earnings before interest, tax, depreciation, amortisation, impairment, employee share schemes, non-controlling interests, adjustments for associate's share of interest, tax and depreciation, loss on disposal of assets and other cash and non-cash items'. Refer to note 5 of the Rakon Limited Annual Report 2021 for additional information including a reconciliation to Net Profit After Tax (NPAT).

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Markets and Products				
CORE MARKETS (SHARE OF REVENUE FY2021)	Telecommunications (60%)	Space & Defence (24%)	Positioning (11%)	loT, Emerging & Other (5%)
MARKET DEFINITION	The telecommunications infrastructure market encompasses the equipment that enables communications networks to operate. This includes 4G/5G small cells, mobile base stations, microwave, backhaul networks as well as data centres (e.g. cloud computing), transport switches, routers and optical transmission equipment.	From traditional satellites, NewSpace ² , deep space exploration, avionics to radar, our products go into applications where high-reliability, precision and performance are all critical.	Our products provide the accuracy required for applications including Global Navigation Satellite System (GNSS) equipment, Personal Navigation Devices (PNDs), high precision positioning (surveying, mining and agriculture), emergency locator beacons, aviation, drones, automotive, asset tracking and sport and recreation products.	We also supply into other applications such as wireless control, test and measurement, the Internet of Things (IoT) including Machine-to-Machine (M2M), smart grids and metering, as well as other emerging markets.
PRODUCTS	OCXOs, TCXOs, VCXOs, XOs and Crystals.	System Solutions, USOs, OCXOs, OCSOs, TCXOs, VCXOs, VCSOs, XOs, VCOs, Crystal Filters and Crystals.	OCXOs, TCXOs, VCXOs, XOs and Crystals.	OCSOs, OCXOs, TCXOs, VCXOs, XOs and Crystals.
PRINCIPAL MANUFACTURING LOCATIONS	India NZ France	France NZ India	NZ Taiwan ³	France NZ Taiwan ³
RESEARCH AND DEVELOPMENT	France NZ UK	France NZ India	NZ UK	France NZ UK
KEY POINTS FROM FY2021	 Revenue \$77m, up 18% on FY2020. In Telecommunications there was increased demand for Rakon's 5G products, including solutions based on our Mercury+[™] chip, as network operators advanced the deployment of new 5G networks and enhanced existing networks. Increased design wins also occurred for Rakon's proprietary chip (Pluto[®]) products amidst global chip shortages. Strong data centre growth was driven by precise timing requirements for many applications, including distributed processing, security and financial transactions. Additionally, a major new cloud computing customer was secured. In the second half of the year Rakon's proprietary 5G millimetre wave technologies were designed into 5G networks by Tier 1 customers. 	 Revenue \$30m, up 7% on FY2020. The increase in revenue from Space & Defence was primarily due to growth in Rakon's France and Indian space businesses while Defence segment growth from the prior year consolidated. Initial deliveries were made for a major LEO satellite constellation. The company was also delighted to celebrate Rakon designed and manufactured products being on board NASA's Mars Perseverance Rove during its successful mission to Mars. 	 Revenue \$14m, down \$4.9m on FY2020. Revenue from the Positioning segment was lower from the aeronautical and emergency locator beacon markets as global travel was suppressed, and from the anticipated decline in low-margin, commoditised products. Steady growth was achieved in the higher-margin, precision industrial applications used in autonomous agriculture and mining equipment. Opportunities and Outlook: Solid revenue growth is expected in the Positioning segment over FY2022, with significant orders received for TCXO products (a key component in a range of applications including consumer devices) due to global shortages. Electric and autonomous vehicle market segment growth is continuing to put pressure on component supply. The autonomous vehicle industry is driving the need for higher performance and higher reliability frequency control products. 	 Revenue \$7m, flat compared to FY2020. New and emerging markets offer key opportunities and are a hotbed for Rakon's new products and technology. The IoT is a rapidly growing market with opportunities for end point/node/IoT module timing requirements. As this high volume, Iower margin business grows, Rakon is realising value through its partnership with Siward and through its designs and customer relationships. Additionally, Rakon is leveraging its investment and relationship with Thinxtra for the IoT. As at 31 March 2021 Rakon held a 6.9% shareholding in Thinxtra.
	Opportunities and Outlook: Increased demand for Rakon's 5G technologies is expected to continue as 5G deployments accelerate in line with increasing global expectations for highly reliable, high-speed communications and data transfer.	Defence is expected to deliver continued growth over the next year including further LEO orders expected. The Defence business remains robust and design-in opportunities leveraging our XMEMS [®] technology are progressing.	Additionally, demand in the aeronautical and emergency locator beacon sub-segments is expected to recover as local and global travel resumes. Further growth in autonomous equipment is also anticipated in line with increasing standardisation of automation.	Opportunities and Outlook: There are many emerging possibilities such as Virtual and Augmented Reality (VR & AR), Artificial Intelligence (AI) and the many applications that will require ever-increasing precise timing to operate.

² New space refers to a globally emerging private / commercial spaceflight industry. This includes aerospace companies and ventures working to develop faster, better and cheaper access to space and space technologies. It includes Low Earth Orbit satellites such as CubeSats.
 ³ The Taiwan location is a Contract Manufacturer.

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Governance and Leadership

Bruce Irvine – Chair and Independent Director

Bruce was appointed to the Board in 2005 and re-elected at the 2018 annual meeting. Bruce was Managing Partner of Deloitte Christchurch from 1995 until his retirement in 2007 to focus on his director roles. Bruce is a professional director with extensive experience across a wide range of industries. He is a Chartered Fellow of the Institute of Directors, as well as an Accredited Fellow of Chartered Accountants Australia and New Zealand (CAANZ).

He is currently Chair of Heartland Bank Limited, Market Gardeners Limited and Skope Industries Limited. He is also a director of Scenic Hotel Group Limited, House of Travel Holdings Limited and a number of other private companies. Bruce is involved in a voluntary capacity as a Trustee of Christchurch Symphony Trust.

Board of Directors

Bruce Irvine (Chair and Independent Director), Brent Robinson (Executive Director), Yin Tang Tseng (Non-Executive Director), Keith Oliver (Independent Director), Lorraine Witten (Independent Director) and Keith Watson (Independent Director).

Brent Robinson – Executive Director (Managing Director and CEO)

Brent was appointed to the Board on 5 November 1991 and re-elected at the 2019 annual meeting. Brent has worked at Rakon for 42 years and has been CEO / Managing Director since 1986, during which time Rakon has established global operations and markets. In his capacity as Chief Technology Officer, Brent drives the business' technology and innovation. Under Brent's leadership Rakon has grown into a global business and a recognised leader in the frequency control product industry. Brent is an Honorary Fellow of the Institution of Professional Engineers New Zealand. He was awarded the New Zealand Hi-Tech Trust Flying Kiwi Award in 2011.

Dr. Sinan Altug - Chief Operating Officer

Sinan joined Rakon in 2002 and commenced as COO in January 2020. In this position he leads, aligns and drives the company's global operations to best meet customer demand and create profitable growth. Other senior positions held by Sinan include Managing Director of Rakon's European businesses and Global Business Development Director.

Before joining Rakon Sinan has held various management positions in the frequency control product industry including Director of European Operations for Champion Technologies. He has a PhD in Electrical Engineering and an MBA.

Dividend Policy

Rakon maintains a dividend policy such that it will pay a dividend of up to 50% of the after tax profit, if considered fiscally appropriate.

Anand Rambhai – Chief Financial Officer

Anand joined Rakon in January 2012 and was appointed CFO in November 2018. Anand brings strong leadership, commercial skills and in-depth Rakon business knowledge to the company. In his current role he is responsible for Rakon's finance, information systems and investor relations functions.

Anand has gained broad financial and commercial experience in previous roles with organisations including Sony, British Telecom and Deloitte. Anand is a member of Chartered Accountants Australia and New Zealand (CAANZ).

Group Executive

Brent Robinson (Managing Director/CEO); Dr. Sinan Altug (Chief Operating Officer); Darren Robinson (Chief Marketing Officer); Anand Rambhai (Chief Financial Officer); Margo Thomas (General Manager, Global People and Capability); Scott Stemper (Global Quality Manager); Roy Cann (Head of Global Engineering), Maureen Shaddick (Company Secretary); Borja Thomas (Thomas) Schuhmacher (Head of Global Product Management) and Arun Parasnis (Managing Director, Rakon India).

Rakon Share Price



Data shown is in New Zealand currency. Source: https://nz.finance.yahoo.com/quote/RAK.NZ/history

Financial Calendar

Date	Event
12 August 2021	Annual Shareholders' Meeting
30 September 2021	Final Half Year-end (HY2021)
25 November 2021	HY2022 Results
31 March 2022	Final Year-end (HY2022)
May 2022	FY2022 Results
July 2022	FY2022 Annual Report and Review available

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Glossary



Crystal Filter

A filter that allows only the desired frequency to pass through to the output.



Crystal Micro-Electro-Mechanical System (XMEMS®)

Rakon's advanced quartz-based resonator technology. It is made using Rakon's NanoQuartz™ micro fabrication process, delivering unprecedented resonator and oscillator performance.



Crystal Oscillator (XO)

A quartz crystal combined with oscillation circuitry to generate a repeating electric signal.



Crystal Resonator (Xtal)

At the heart of XOs, VCXOs, TCXOs and OCXOs are quartz crystals, which are designed to resonate with electrical stimulation using the piezoelectric effect.



Oscillator

A circuit or device that generates a fixed frequency signal and consists of a resonator and electronic components.



Oven Controlled Crystal Oscillator (OCXO) A crystal oscillator that uses a miniaturised oven to

keep its internal temperature constant.



Oven Controlled SAW Oscillator (OCSO) An oven controlled oscillator using Surface Acoustic Wave (SAW) technology.









Temperature Compensated Crystal Oscillator (TCXO)

Refers to Rakon's solutions that include high

performance products, equipment and consulting

System Solutions

services for Space & Defence.

Ultra Stable Oscillator (USO)

A crystal oscillator with additional circuitry to remove frequency variations due to temperature change.

An extremely stable oscillator used in high-end





Voltage Controlled Crystal Oscillator (VCXO)

space and instrumentation applications.

A crystal oscillator with an adjustable output frequency.



adjustable output frequency, without the use of a crystal or SAW resonator.



Voltage Controlled SAW Oscillator (VCSO) A SAW oscillator with an adjustable output frequency.

Highlights

Innovating Since 1967

A proud history of delivering industry 'firsts' including: miniature GNSS TCXO, stratum 3 TCXO, high g-shock TCXO and lowest g-sensitivity Surface Mount Device (SMD) TCXO, emergency beacon TCXO, Long Term Evolution (LTE) small cell TCXO, Application Specific Integrated Circuit (ASIC) based OCXO & world's smallest, and system solutions for radars.

In-House ASIC and Test Equipment Teams Kev Differentiator

Rakon designs its own oscillator ASICs and develops its own production test equipment. This is a unique capability in the Frequency Control Product (FCP) domain – enabling next generation technologies.

- K High Performance and Competitive Pricing Six Rakon R&D centres worldwide with a 50+ year history. Rakon's experience and in-depth knowledge of system requirements, enables the development of innovative solutions, tailored to suit its customers' ecosystems. Rakon has manufacturing operations in New Zealand, India and France. It also has manufacturing partners in Thailand and Taiwan.
- Winner of Prestigious Industry Awards Awards include the coveted 'Queen's Award for Enterprise – International Trade', New Zealand's 'Hi-Tech Company of the Year' and 'Hi-Tech Company of the Decade', 'Hi-Tech Exporter of the Year Award', 'Supreme Winner', as well as a number of supplier awards.

Company Information

Share Listing

Listed on NZX Main Board (NZSX) Code: RAK Share price as at 14 July 2021: \$0.96 Shares on issue as at 14 July 2021: 229,055,272 Market capitalisation: \$219,893,000

Financial year end: 31 March 2022

Share Registry

Computershare Investor Services Limited Private Bag 92119 Victoria Street West Auckland 1142 New Zealand Tel: +64 9 488 8777 Fax: + 64 9 488 8787 enquiry@computershare.co.nz www.computershare.co.nz

Company Advisers

Auditors: PricewaterhouseCoopers Principal Lawyers: Bell Gully Bankers: ASB Bank

Company Information

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Voltage Controlled Oscillator (VCO) A purely electronic oscillator circuit with an