



NEWS RELEASE

Rocket Lab Increases Space Systems Offerings with New Products for Small Satellites

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New interplanetary radio and reaction wheel for constellations to close key gaps in the supply chain.

LONG BEACH, Calif.--(BUSINESS WIRE)-- Rocket Lab USA, Inc. (**Nasdaq: RKL**) ("Rocket Lab" or "the Company"), a global leader in launch services and space systems, today released two new high-performance space systems products designed to increase the availability of essential satellite components to the global small satellite market.

Rocket Lab 12Nms reaction wheel in production. (Photo: Business Wire)

Bolstering the Company's existing line of proven satellite

components, the new Rocket Lab products include the Frontier-X software defined radio designed to provide high speed data for both near Earth and deep space small satellite missions, as well as a new 12Nms reaction wheel designed specifically for constellation class satellites.

The products join Rocket Lab's existing heritage space systems components including star trackers, reaction wheels, separation systems, radios, flight software, ground software, and solar power solutions. Combined, Rocket Lab's space systems components have supported more than 1,700 space missions to date.

Enabling Small Sat Deep Space Missions With Frontier-X Satellite Radio

Rocket Lab's new Frontier-X radio is a high-speed, X-band ranging RF transceiver designed to expand the reach of small satellites beyond low Earth orbit (LEO) to cislunar and deep space destinations as well as provide an affordable alternative for mission payload downlink at LEO.



The Rocket Lab Frontier-X radio joins the Frontier-S ranging RF transceiver in bringing advanced functionality not typically available in affordable software-defined radios. This includes a coherent transponder to enable radiometric navigation methods, precision timekeeping functions, turbo and convolutional encoding compliant with recommended standards by the Consultative Committee for Space Data Systems (CCSDS), and a hardware-based critical command decoder (CCD). The X-band radio packs Deep Space Network (DSN) waveforms, two-way doppler and regenerative ranging, beacon modes, and low baud rates enabled by low power digital signal processing (DSP) in a low mass solution. The Frontier-X radio has the durability to survive in high radiation environments beyond Earth orbit, including to geostationary orbit (GEO) and deep space.

Rocket Lab's Frontier radios are based on the Johns Hopkins University (JHU) Applied Physics Laboratory's (APL) Frontier Radio and backed by proven flight heritage, having successfully flown the Frontier-S on the Company's Photon spacecraft, a Rocket Lab designed and launched spacecraft that deployed the CAPSTONE satellite to the Moon for NASA. The Frontier-X radio has completed qualification, is slated to fly on NASA's Escape and Plasma Acceleration and Dynamics Explorers (ESCAPADE) mission to Mars, for which Rocket Lab is developing and building two spacecraft. Frontier-X is available for order now with production taking place at Rocket Lab's headquarters in Long Beach.

Reliable In-Space Attitude Control with Latest Constellation-Class Reaction Wheel

Building upon strong space heritage and extensive experience across decades of reaction wheel production with Sinclair Interplanetary by Rocket Lab, the new 12Nms reaction wheel has been developed to expand attitude control solutions that already include reaction wheels ranging from 10mNms to 1Nms and high-performance star trackers.

Rocket Lab's 12Nms reaction wheel, designed for long-life and reliability, is ideal for attitude control of spacecraft with masses as high as 600-650 kg and lifetimes as long as 12 years. With its low mass, power, and volume, the 12Nms reaction wheel caters to high mission assurance civil or national security missions as well as high volume constellation missions. The 12Nms wheel comes in a radiation hardened variant for longer life and a LEO variant for shorter lifetime missions. The 12Nms wheel is currently planned for flight with an undisclosed large mega constellation customer.

Rocket Lab's reaction wheels have been used in more than 100 satellites to date for missions and constellations focused on remote sensing, communications, science, technology demonstrations, and more. The 12Nms reaction wheel is under production and available immediately.

For information about Rocket Lab's Space Systems products, visit rocketlabusa.com.

- **Reaction Wheels**
- **Software Defined Radios**

+ About Rocket Lab

Founded in 2006, Rocket Lab is an end-to-end space company with an established track record of mission success. We deliver reliable launch services, satellite manufacture, spacecraft components, and on-orbit management solutions that make it faster, easier and more affordable to access space. Headquartered in Long Beach, California, Rocket Lab designs and manufactures the Electron small orbital launch vehicle, the Photon satellite platform and the Company is developing the large Neutron launch vehicle for constellation deployment. Since its first orbital launch in January 2018, Rocket Lab's Electron launch vehicle has become the second most frequently launched U.S. rocket annually and has delivered 155 satellites to orbit for private and public sector organizations, enabling operations in national security, scientific research, space debris mitigation, Earth observation, climate monitoring, and communications. Rocket Lab's Photon spacecraft platform has been selected to support NASA missions to the Moon and Mars, as well as the first private commercial mission to Venus. Rocket Lab has three launch pads at two launch sites, including two launch pads at a private orbital launch site located in New Zealand and a third launch pad in Virginia. To learn more, visit www.rocketlabusa.com

+ Forward Looking Statements

This press release may contain certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of historical facts, contained in this release, including statements regarding our expectations of financial results for the fourth quarter of 2022, strategy, future operations, future financial position, projected costs, prospects, plans and objectives of management, are forward-looking statements. Words such as, but not limited to, "anticipate," "aim," "believe," "contemplate," "continue," "could," "design," "estimate," "expect," "intend," "may," "might," "plan," "possible," "potential," "predict," "project," "seek," "should," "suggest," "strategy," "target," "will," "would," and similar expressions or phrases, or the negative of those expressions or phrases, are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements are based on Rocket Lab's current expectations and beliefs concerning future developments and their potential effects. These forward-looking statements involve a number of risks, uncertainties (many of which are beyond Rocket Lab's control), or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. Many factors could cause actual future events to differ materially from the forward-looking statements in this release, including risks related to the global COVID-19 pandemic; risks related to government restrictions and lock-downs in New Zealand and other countries in which we operate that could delay or suspend our operations; delays and disruptions in expansion efforts; our dependence

on a limited number of customers; the harsh and unpredictable environment of space in which our products operate which could adversely affect our launch vehicle and spacecraft; increased congestion from the proliferation of low Earth orbit constellations which could materially increase the risk of potential collision with space debris or another spacecraft and limit or impair our launch flexibility and/or access to our own orbital slots; increased competition in our industry due in part to rapid technological development and decreasing costs; technological change in our industry which we may not be able to keep up with or which may render our services uncompetitive; average selling price trends; failure of our launch vehicles, spacecraft and components to operate as intended either due to our error in design in production or through no fault of our own; launch schedule disruptions; supply chain disruptions, product delays or failures; design and engineering flaws; launch failures; natural disasters and epidemics or pandemics; changes in governmental regulations including with respect to trade and export restrictions, or in the status of our regulatory approvals or applications; or other events that force us to cancel or reschedule launches, including customer contractual rescheduling and termination rights; risks that acquisitions may not be completed on the anticipated time frame or at all or do not achieve the anticipated benefits and results; and the other risks detailed from time to time in Rocket Lab's filings with the Securities and Exchange Commission (the "SEC"), including under the heading "Risk Factors" in Rocket Lab's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, which was filed with the SEC on March 24, 2022, and elsewhere (including that the impact of the COVID-19 pandemic may also exacerbate the risks discussed therein). There can be no assurance that the future developments affecting Rocket Lab will be those that we have anticipated. Except as required by law, Rocket Lab is not undertaking any obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

+ Images & Video Content

[Spacecraft Components | Flickr](#)

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