

NEWSPACE MARKET · COMPANY PROFILE



THUMB SAT

ThumbSat

United States · founded 2014 · thumbsat.com

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WITH DATASHEETS

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as of 20 August 2026



ThumbSat

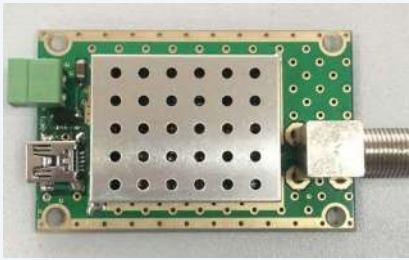
ThumbSat, Inc. is a US small-satellite access-to-space company that lets schools, universities, research groups, artists and individual experimenters fly hardware in low Earth orbit without building or licensing an entire spacecraft. Its core product, the ThumbSat, is a femtosatellite-class hosted-payload module roughly 48x48x(15-32)mm and up to 25g, built around a shared bus that supplies power, a camera, GPS, flash memory and a 400MHz radio link, with customer experiments integrated directly onto the shared structure. ThumbSat handles the regulatory paperwork, satellite build, launch integration and post-launch data return, compressing a process that traditionally costs hundreds of thousands of dollars and takes years down to a package starting at roughly \$20,000 with results in weeks. The company's engineering and manufacturing work is coordinated across a distributed team, with satellite integration and testing carried out at a Tijuana, Mexico facility, and launches procured through partners such as CAS Space, flying on vehicles including the Lijian-1 rocket from Jiuquan, China. Its most recent orbital mission, TS1/TS2, launched in August 2025 carrying two sub-100g ThumbSat femtosatellites, including a mirror-selfie payload and an artistic payload, and was tracked from first signal acquisition by a distributed volunteer ground network. Supporting the satellites is ThumbNet, ThumbSat's global network of low-cost, internet-connected 400MHz ground stations built and operated largely by students, educators and citizen scientists using ThumbNet SDR receivers (including the N3 USB dongle) and 3D-printable automated antenna trackers. ThumbNet lets ground station operators receive, decode and share live mission data, turning every ThumbSat launch into a hands-on STEAM edu

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Services

Experiment Assistance ThumbSat offers support and assistance with customer experiments, helping them prepare for space deployment.	Ground Station Network Access (ThumbNet) ThumbSat provides access to its global network of internet-linked ground stations (ThumbNet) for satellite data collection and communication.
Launch Partnership ThumbSat provides launch services through its partnership with CAS Space, offering fast and flexible access to orbit for various payloads.	Mission Data Access and Orbit Viewing Customers can select missions, view their actual or planned orbits, and access mission-related information and data through ThumbSat's Mission Control interface.
Paperwork Handling ThumbSat manages the complex paperwork associated with launching experiments into space, simplifying the process for customers.	

Product catalogue



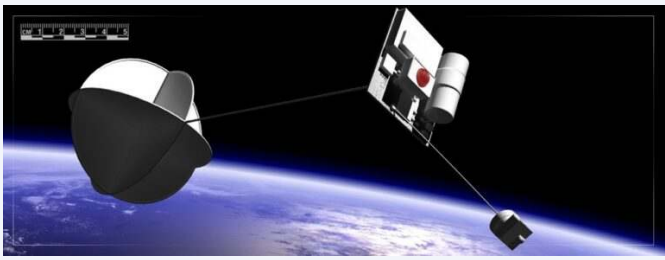
THUMBSAT

ThumbNet N3 SDR Receiver

Compact USB SDR receiver dongle for ThumbNet citizen-science ground stations, tuned for 400MHz-band ThumbSat downlink and ADS-B reception, built around the R820T2/RTL2832U chipset.

Tuner IC	R820T2
Demodulator	RTL2832U
EEPROM	24C02
Frequency range	24 MHz - 1766 MHz (approx. 13-1864 MHz with experimental drivers)
Input impedance	75 ohm
ADC resolution	8-bit (practical 7-7.5 bit with oversampling)
Clock stability	High-stability TCX0, +/-0.5 ppm

\$25.75



THUMBSAT

ThumbSat

Femtosatellite-class hosted-payload module (~48x48x15-32mm, up to 25g) that flies student, research or artistic experiments to low Earth orbit as a shared-bus mission starting at a

Payload envelope	48 x 48 x (15-32) mm
Payload mass	up to 25 g
Camera	CMOS, active array 2048(H) x 1536(V) pixels; optional microscope, macro or telescope lens
Onboard memory	128 MB or 512 MB flash
Transmitter	100 mW, 400 MHz band
Positioning	Integrated GPS receiver
Battery	Lithium Thionyl Chloride primary cells

from \$20 000

[datasheet](#)

Contact ThumbSat

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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