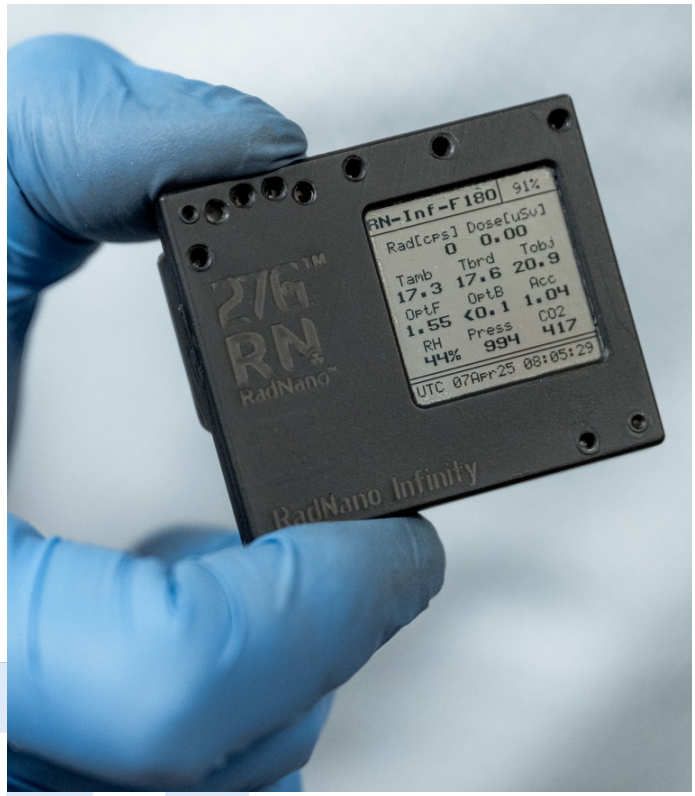
27G™-Technology

RadNano™ Infinity radiation sensing unit, Astronaut dosimeter

Datasheet

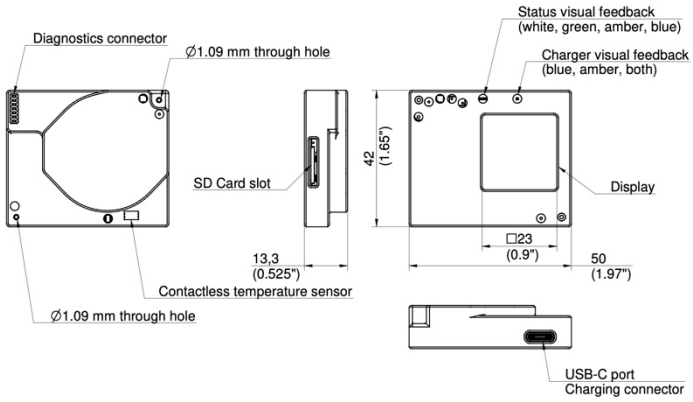
RadNano™ Infinity features:



- Compact dosimeter with numerous functions
- Portable, lightweight design
- High level of flexibility
- Low power consumption, >2 months operation
- Rechargeable battery, USB-C charging port
- Display for instant data access
- Flashlight feedback system
- Audible feedback system
- Flexible alarm options
- Real time clock and calendar, 1 ppm typ. accuracy
- Timestamped data with 1 second resolution
- Redundant data recording to microSD card and internal memory
- Bluetooth Low-Energy connection (featured - optional)
- Ultra-low EMI emission, high susceptibility
- Robust housing, drop and impact resistant
- Operation in vacuum, EVA compatible
- Low vacuum outgassing
- Waterproof IP67 (featured)
- **Spaceflight proven, TRL-9 (Axiom-4, International Space Station).**

RadNano™ Infinity is a tiny active electronic dosimeter, optimized for small size and power consumption. These instruments were designed to track the radiation exposure of astronauts during crewed space missions and to collect scientific data, equipped with further environmental sensors (temperature, humidity, pressure, inertial measurement unit, CO_2 and air quality, light intensity sensors and magnetometer) to completely cover the environmental condition monitoring of the crew or mission experiments. The energy efficient semiconductor technologies of 27G made it possible to design a lightweight portable handheld device that can operate for months using its integrated rechargeable battery without any external charge. The actual status of the device and the measured environmental parameters are visible for the users on a small LCD display, the recorded data is accessible for further technical and scientific analyses. Alarms could be also activated to help the users to avoid potentially dangerous situations. NASA and ESA approved these instruments for the Ax-4. TRL-9 status, recommended by astronauts. Applications may include space missions, scientific experiments, medical devices, nuclear research, industrial applications and many more…

	Typ.
Sensorics and data products	Radiation intensity, total dose, Temperatures (device, air, contactless infra), Air pressure, air humidity, CO_2 level and air quality, Light intensity and spectrum monitoring, 3 axis magnetometer, 3 axis accelerometer, 3 axis gyroscope.
Dimensions	42.0 × 50.0 × 13.3 mm (~ 1.65 × 1.97 × 0.53”)
Mass	55 g (0.122 lbs)
Expected operational time	>2 months continuous (without recharge)
Timing accuracy	1 ppm typical



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Website