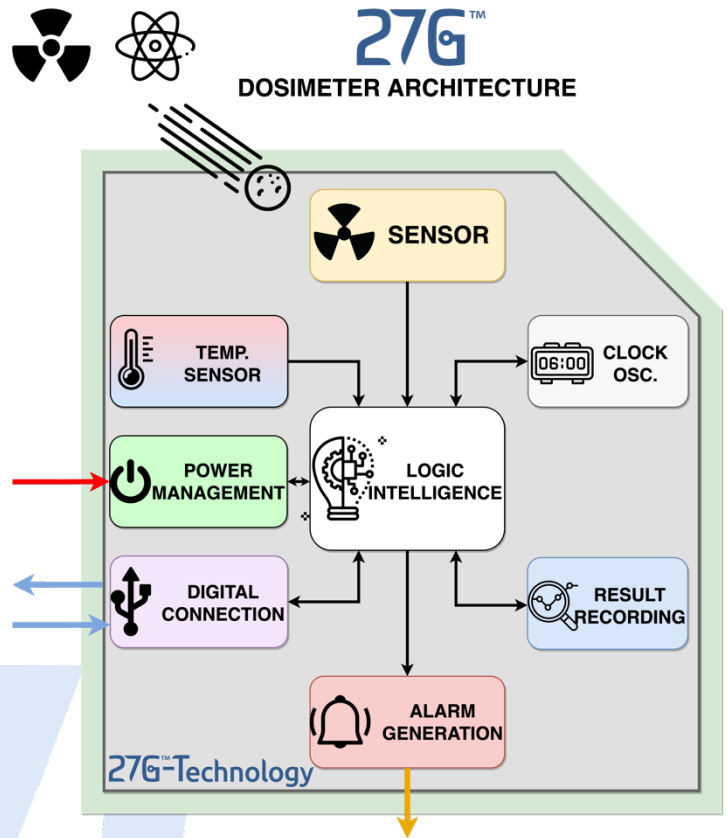




RadNano™ features:

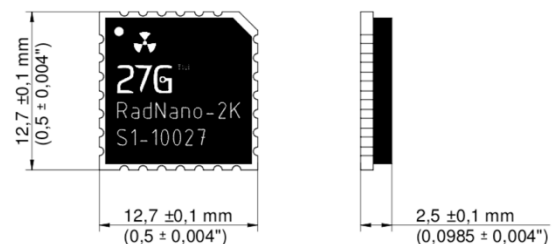
- The world's smallest dosimeter
- Large measurable radiation range
- Ultra-low power consumption
- Dual sensors for high accuracy and reliability
- Automatic measurements
- Self-test
- Configurable alarms
- Digital communication
- Autosave function (result retention option)
- Internal precision temperature sensor
- Wide operational temperature range^{1*}
- Low frequency clock oscillator option^{2*}
- IP67 protection, dust resistant, low EMI^{3*}
- High shock and vibration resistant^{4*}
- Single power supply voltage
- Available for space applications
- Space flight proven solution, TRL-9



RadNano™ is a tiny electronic dosimeter, optimized for small size and power consumption. These instruments use semiconductor-based technologies to sense and measure the ionizing radiation that reaches the electronics, including gamma, X-ray, HZE and high-energy proton radiations^{5*}. The RadNano™ is completely free of any hazardous materials and designed to easily fit modularly to any electronic system. It could be useful for numerous purposes, wherever radiation dosimetry is important. Applications may include space missions, scientific experiments, nuclear research, industrial applications, medical devices and many more...



	Typ.
Dimensions	12.7×12.7×2.5 mm
Mass	< 1.0 g
Sensitivity ^{6*}	RadNano-2K: 0.2 mGy to 20 Gy RadNano-XK: 1 mGy to 100 Gy
Power usage	< 10 μW standby ^{8*} < 10 mW active
Supply Voltage	3.3 V or 5V ± 10 % ^{9*}
Communication	UART or I ² C and other possible protocols ^{10*}
Reliability	MTTF > 1.1 M hours (50°C, MIL-HB-217F)



¹ -40°C to +85°C on request.

² 32.768 kHz ± 20 ppm.

³ Qualification based on IEC 60529, MIL-STD-810, MIL-STD-461.

⁴ 5000 g, 0.3 ms, ½ sine shock, 20g 10-2000 Hz vibration, MIL-STD-810.

⁵ Please refer to the RadNano Application Note for further information!

⁶ Qualification tests performed based on ESCC 22900. Please refer to the RadNano Application Note for further information!

⁸ With basic connections and 3.3V power supply. The 5V regulator consumes additional power if used.

⁹ Single supply voltage of 3V, integrated regulator for 5V operation. Please refer to the RadNano Application Note for further information!

¹⁰ Several options available over UART and I²C protocols, redundant communication option, Bluetooth version featured.

*Contact us for special requests, even if your option is not listed yet!

Homepage: www.27g.space

E-mail: info@27g.space

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WEBSITE