

Accelerate Your Dosimeter Development with the BGX510 Core Module

The BGX510 is a fully-functional, beta, gamma, and X-ray dosimeter. With the BGX510, you get a dependable core that accelerates your development cycle and streamlines your path to market. Ideal for OEMs, product development companies, and technology integrators in the medical, industrial, research, and security sectors.



Who Needs a Dosimeter? If Your Job is Here, It's You.

- **Hospital Staff in Radiology & Radiotherapy**
- **Airline Pilots, Crew, & Frequent Flyers**
- **Handlers of Radioactive Materials**
- **Nuclear Power Plant Personnel**
- **Mining & Tunnel Construction Workers**

Stop building from scratch. The BGX510 is the robust, pre-engineered core module that transforms your complex radiation dosimeter project into a streamlined path to market.

Engineered for professional applications, this is not a consumer gadget - it's your strategic advantage. We provide the critical, certified technology: a fully-functional sensing and measurement engine for beta, gamma, and X-ray radiation. You focus your resources on what sets your product apart: the unique housing, specialized software, brand-specific user interface, and custom integration for your end-users.

Key Benefits for Your Business:

- **Substantially Reduce R&D Time & Cost:** Eliminate the uncertainty and expense of developing the core radiation detection circuitry.
- **De-Risk Your Project:** Build upon a proven, reliable platform with known performance characteristics.
- **Speed to Market:** Launch your tailored end-product faster and seize market opportunities ahead of competitors.
- **Focus on Innovation:** Concentrate your engineering talent on creating value-added features and applications, not reinventing the foundation.

Dosimeter BGX510 Technical Data

- **Radiation Sensor:** Teviso BG51-OEM
- **Display:** LCD 6-digit digital + LED (1 blink per event)
- **Digital display capacity:** 4,000 μSv radiation dose
- **Sensitivity:** 250 counts at 1 μSv radiation dose
(linear from 0.1 to 1,000 $\mu\text{Sv/h}$)
- **Measurement accuracy:** $\pm 5\%$
- **Battery life:** 5 years continuous operation
- **Dimensions (L×W×H):** 91 × 57 × 16 mm;
Weight: 77 g

Reference data on radiation exposure for human organs:

- Round-trip flight London–Beijing: **0.1 mSv** (BGX510 display: 25,000).
- One mammography screening: **0.5 mSv** (BGX510 display: 125,000).
- Annual natural background exposure: **2 mSv** (BGX510 display: 500,000).
This dose is tolerated by the human body via regeneration.
- **100 mSv – 1.0 Sv:** Increased cancer risk.
- **1.0 Sv – 10 Sv:** Severe organ damage.
- **>10 Sv:** Lethal.

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