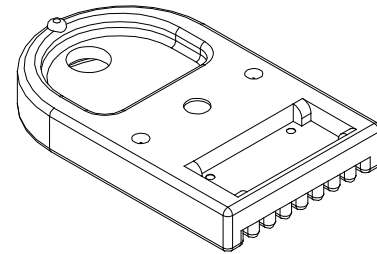


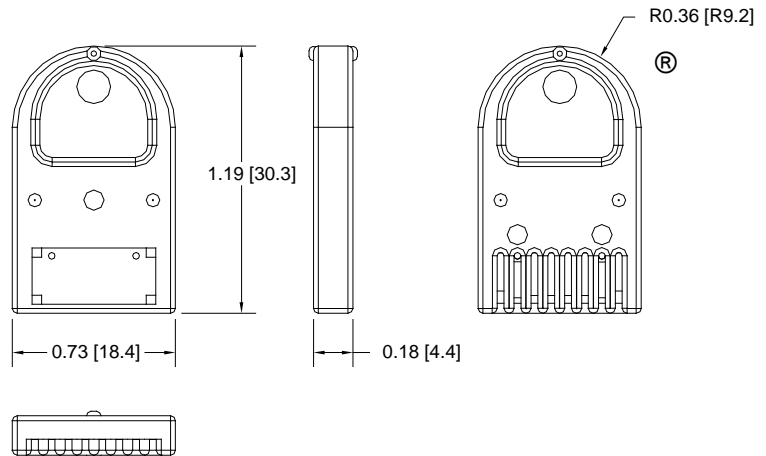
Datakey Electronics' SGT4Kb GammaSafe™ memory token is an economical, non-volatile, portable memory device that survives gamma or e-beam sterilization with no loss of data. The SGT4Kb token contains 4Kbits of non-volatile, re-writable memory. The memory is accessed using an SPI<sup>1</sup> bus and is functionally similar to an SPI EEPROM. The GammaSafe™ memory token withstands up to 45kGy (cumulative dosage) of gamma or e-beam radiation, making it an ideal solution for disposable medical products sterilized using gamma or e-beam radiation. Typical medical applications tether a GammaSafe™ token to a disposable attachment. In this scenario, both the attachment and the memory token plug into a controller unit, with the memory token plugging into a GammaSafe™ receptacle (see GR4000 receptacle data sheets for more information, including immersion/splash-proof configurations). Common applications include: product authentication (anti-counterfeit), usage tracking (limit-use), calibration information uploads, model identification (auto ID), set-up parameter uploads and more.

Optional features of the GammaSafe™ memory token include an integrated tether and a sterilization indicator. The tether allows OEMs to attach the token to their disposable without changing its design. The sterilization indicator turns from yellow/orange to red after being exposed to gamma or e-beam radiation (10kGy+).

Mechanical	
Contact Life	100 Insertions/Removal Cycles Min.
Contact Arrangement	Single-sided. Insert contacts down. Keying feature ensures contacts down when inserting into GR4000 receptacles.
Electrical <sup>1</sup>	
Power, Active	10 milliwatts @ 3.3V maximum
Power, Standby	3.3 microwatts @ 3.3V maximum
Voltage	2.7V to 3.6V
ESD Protection	15kV (per Std. 064-1028)
Environmental	
Storage Temperature	-40°C to +100°C
Operating Temperature	-15°C to +85°C
Relative Humidity	5% to 95% (non-condensing)
Gamma/E-Beam Radiation	Up to 45kGy (4.5Mrad) Cumulative
Memory <sup>1</sup>	
SGT4Kb	4Kb (4096 bits) 512 x 8
Read Cycles	Unlimited
Write/Erase Cycles	1,000,000 Cycles Minimum
Data Retention	10 Years Minimum
Options <sup>2</sup>	
Sterilization Indicator	Located in window opposite side from contacts. 10kGy turns indicator red.
Integrated Tether	5-inch (12.7cm) cable-tie
Mating Component(s)	
Panel-Mount Receptacle	GR4310 and GR4410 Receptacles
PCB Mount Receptacle	GR4220PCB and GR4220SMT
Reader/Writer	GammaLink™ III Reader/Writer
Ordering Information <sup>3</sup>	
SGT4Kb	611-0207-00XA
SGT4Kb with Tether	611-0207-10XA
SGT4Kb with Indicator	611-0207-30XA
SGT4Kb with Both	611-0207-20XA



For pin-out information, refer to the individual data sheets for the GR4000 Family of Receptacles.



Drawing dimensions are in inches and millimeters [mm]. Dimensions are nominal and subject to manufacturer's tolerances.

#### NOTES:

- 1: Customers must design to meet Datakey Electronics' Interface Specification to provide for future data carrier compatibility. Interface specifications typically available at [http://www.datakeyelectronics.com/technical\\_inter\\_specs.html](http://www.datakeyelectronics.com/technical_inter_specs.html). Contact the factory for preliminary versions.
- 2: Contact the factory for more information on these options.
- 3: "X" indicates optional color number. "A" suffix on part number indicates RoHS compliance.

