

### Other SSDs from TCS:

#### Proteus 2 – SATA 3.0 2.5" SSD:

- Support for SATA 3.0 at 3.0 and 6.0 Gb/s
- Available with secure erase capability for quick, safe removal of data
- Independently tested to MIL-STD-810 for proven ruggedness

#### Proteus Plus – SSD:

- Support for SATA 2.6 at 1.5 and 3.0 Gb/s
- 64MB cache enables high IOPS for small block random operations
- Available with and without secure erase capability
- Alternative enhanced erasure available on request
- Write Protect by jumper
- Ruggedized design; tested to MIL-STD-810
- Precision machined, anodized aluminum alloy case
- Enhanced reliability options include conformal coating, staking, and component encapsulation
- No device driver development required (completely compatible with standard SATA)

#### Proteus Plus – Embedded Module SSD:

- Support for SATA 2.6 at 1.5 and 3.0 Gb/s
- 64MB cache enables high IO/s for small block random operations
- Available with and without secure erase capabilities
- Available in a 2.5" form factor bare PCB, or in industry standard JEDEC MO-297 and MO-300 form factors
- Completely SATA compatible, no device driver development required

### Custom SSDs:

Customers that require SSDs and solid state data recorders that survive in the most extreme environments come to TCS.

TCS APG can customize an SSD to:

- meet specific Mil-Std-810 requirements
- implement specific encryption and erasure standards
- provide customized interfaces such as video front-ends

TCS has designed and produced SSDs created to be attached to anti-missile warheads and survive the pyrotechnic shock of successful intercepts. Let us design one to meet your most extreme requirements.

### Rugged Solid State Drives from TCS

#### BGADrive – Solid State Drive available as 16GB, 32GB and 64GB

TCS Space & Component Technology, a leader in rugged Solid State Drives for Military, Aerospace and Industrial applications, now offers its BGADrive® in both Serial ATA and Parallel ATA interface versions. These ultra-compact SSDs, packaged in a 31mm x 31mm ball grid array, are perfect for applications such as UAVs, wearable computers and miniature embedded systems where size, weight and power are at a premium.



These drives are complete with an SSD controller based on a 32-bit RISC processor and 4 NAND flash memory devices. High performance is provided by concurrent access of multiple Flash channels and support for performance features such as Native Command Queuing.

The controller provides complete on-the-fly error correction and end-to-end error detection through the use of a Cyclic Redundancy Check (CRC) code to ensure that data is reliably stored and retrieved. Advanced wear-leveling maximizes the usable life of the media while data placement algorithms optimize the spread of cells addressed to reduce data errors due to program and read disturb effects.

Both SATA and PATA BGADrive SSDs support mobile and other low-power applications through sophisticated auto power-saving states and power-fail management. Designed and manufactured in the USA at AS9100-certified facilities, the TCS SSDs are the unquestioned reliability and ruggedness leaders among embedded SSD modules.

#### Galatea 2 – SATA 3.0 2.5" Solid State Drives

TCS Space & Component Technology Galatea 2 provides twice the performance and twice the maximum capacity of Galatea in the same standard 2.5" form factor. Galatea 2 goes further, improving encryption to AES-256 (FIPS 140-2 certified) and adding user key management and TCG Opal compliance for complete data security protection.



Secure erase functionality features seven different agency-approved enhanced erase methods. Erasure can be initiated by either software command or hardware signal.

Galatea 2 SSDs support the SATA revision 3.0 interface standard at up to 6.0Gb/s. Galatea 2 SSDs take full advantage of this improvement and delivers sustained reads up to 550MB/s and sustained writes up to 500MB/s. A robust interface is ensured by integrated hardware support for on-the-fly, per sector error detection and correction. The resulting Bit Error Rate is less than one in 1014.

Rigorously tested and independently verified to MIL-STD-810, the ultra-rugged Galatea 2 SSD will survive the harshest environments. Optional conformal coat, epoxy staking and silicone gel fill allows Galatea 2 to tolerate vibration over 45 Grms. Galatea 2 is available with Industrial grade SLC NAND flash providing data retention of over 10 years and write endurance of up to 12 PB of written data. If you prefer, Galatea 2 is also available with industrial grade MLC NAND flash providing you with a tradeoff between cost and reliability.

Designed and manufactured in the USA at AS9100-certified facilities, the TCS SSDs are the unquestioned reliability and ruggedness leaders among solid state drives.