



**DFX – RUGGEDrive™ Token with Secure Digital (SD/SPI) Functionality**  
**UFX – RUGGEDrive™ Token with USB (MSD) Functionality**

The new RUGGEDrive line from Datakey Electronics offers embedded system designers further flexibility from the leaders in rugged data-carrier systems.

The RUGGEDrive line consists of (2) different unique memory token series....



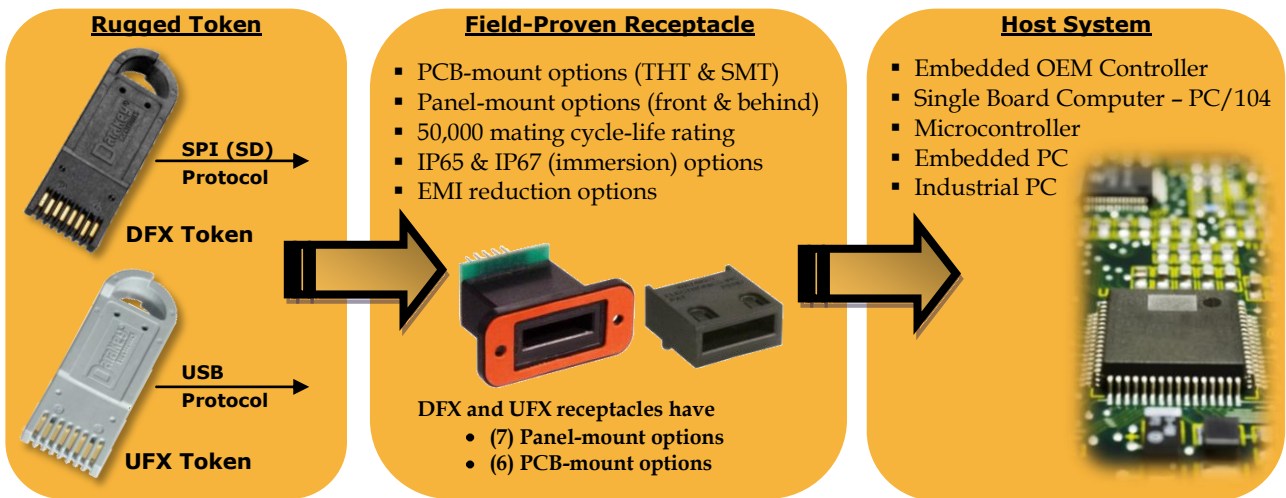
The **DFX Token** delivers a rugged, reliable high-performance Secure Digital (SD) interface (including SPI).



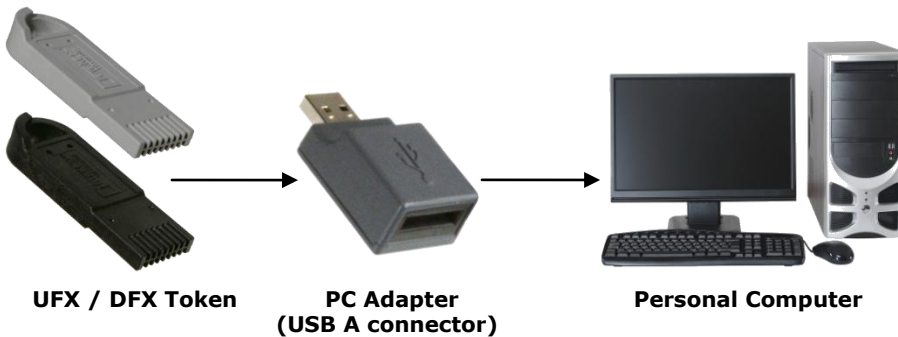
The **UFX Token** delivers a rugged, reliable high-performance USB 2.0 (high-speed) interface.



Both tokens leverage the most appealing aspects of consumer memory devices (high memory capacity, high throughput speed, accepted interfacing protocols), while also utilizing Datakey Electronics' field-proven Extended SlimLine™ Token form-factor - providing *superior* mechanical, environmental, and ergonomic performance. Datakey Electronics also offers a full line of field-proven, high-cycle life mating receptacles for each series.



The RUGGEDrive tokens also offer **easy connection to a PC** through a simple PC adapter (DFX and UFX tokens each have a model available). With this adapter, standard Mass-Storage-Device (i.e. letter drive) operation is achieved.



Without this PC adapter, the DFX & UFX Tokens do not fit in "just any" PC. The unique form-factor helps to secure data stored on the token and greatly reduces the risk of malicious files being loaded to/from the token.





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**OEM Values:**

- ✓ **Rugged** system *increases* reliability in any application
- ✓ **Unique** form-factor *increases* product security and product recognition
- ✓ **High cycle-life** mating receptacles *increase* long-term reliable field-operation
- ✓ **IP-Rated** / Rugged mating receptacles *allow* integration into virtually any environment
- ✓ **Controlled** availability *assures* use of approved device & *opens* additional revenue stream for OEM
- ✓ **Custom** private label and multiple color options *increases* OEM possibilities and user appeal

**Product Features:**

- ✓ Solid state, high-performance data-carrier
- ✓ High-Capacity – 4GB-32GB data storage
- ✓ Small, truly rugged, field-proven system
- ✓ SPI(SD) or USB communication option
- ✓ High data-transfer speeds
- ✓ Resistance to virtually any environment
- ✓ Autoclave and EtO resistant Token
- ✓ Easy connection to PC for file transfer
- ✓ Rugged high cycle-life mating receptacles, including immersion (IP-67) rated options
- ✓ High temperature operation

**2008 Machine Design survey on portable memory devices...  
 Design Engineer's top three needs in a data-carrier system:  
 1)Reliability; 2)Security of Data; and 3)Ruggedness**

	Consumer Devices (SD Cards & USB Flash-Drives)	Datakey RUGGEDrive™ Line (UFX & DFX)	Datakey NFX Managed- Memory™ & MSD	Datakey EEPROM & Serial Flash Devices
<b>Rugged, Reliable, Harsh-Environment Memory Devices</b> — Immersion, High Temp, Vibration, Shock, ESD, etc.	★★	★★★★★	★★★★★	★★★★★
<b>Unique Form Factor Memory Devices</b> — Increases data security, system security, and discourages misuse & theft		★★★★★	★★★★★	★★★★★
<b>Controlled Supply of Quality, Tested Memory Devices</b> — Assures use of qualified device and that OEM receives revenue	★	★★★★★	★★★★★	★★★★★
<b>Rugged, Reliable, Harsh-Environment Receptacles</b> — Multiple mounting and environmental performance (IP ratings, etc.) options	★	★★★★★	★★★★★	★★★★★
<b>Receptacles Have High Mated Cycle-Life</b> — Measured in 10s of thousands, not in hundreds or thousands	★	★★★★★	★★★★★	★★★★★
<b>Controlled Connector—Only Approved Products Fit</b> — Users can't plug in untested, incompatible, or unqualified memory devices		★★★★★	★★★★★	★★★★★
<b>Memory Device Manufacturer Focused on Embedded OEMs</b> — Supply both data-carrier & receptacle with OEM values/benefits	★	★★★★★	★★★★★	★★★★★
<b>Memory System Minimizes Initial OEM Upfront Cost</b> — What are you getting for your money? What will lower initial cost do to (ongoing) support costs?	★★★	★★	★	★★★★★
<b>Memory System Minimizes OEM 's (ongoing) Support Costs</b> — Supporting every product available online. Changes/obsolescence, etc.	★	★★★★	★★★★★	★★★★★
<b>High Speed Throughput</b> — Minimize time to transfer large amounts of data	★★★★★	★★★★★	★	N/A
<b>Memory Capacities</b> — How much capacity does your application actually require?	> 1GByte	> 1GByte	Up to 1GByte	1Kbit – 64Mbit
<b>Interface Protocols</b> — What does your system require for interfacing?	USB, SD, SPI	USB, SD, SPI	USB, SPI	Microwire, I <sup>2</sup> C, SPI

Visit [www.datakey.com/ruggedrive](http://www.datakey.com/ruggedrive) for more information & details on our low-cost DFX and UFX **Development Kits**.

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