

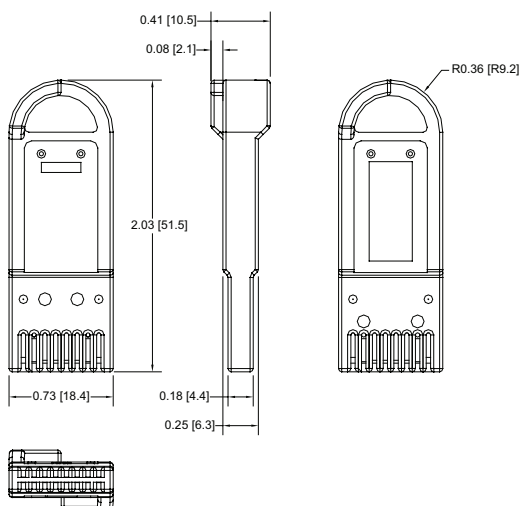
# DFX-I Series

## Industrial RUGGEDrive™ Token with SD Card Functionality

Datakey DFX-I memory tokens deliver SD card functionality in a more robust and secure form factor than consumer and industrial SD cards. As part of the Industrial RUGGEDrive™ line, DFX-I tokens utilize SD memory that is rated for operation over the entire industrial temperature range of -40°C to +85°C. DFX-I models utilize 3D Triple-Level Cell (TLC) NAND flash<sup>3</sup>, while DFX-IS models utilize more robust, pseudo Single-Level Cell (pSLC) NAND flash. Electrically, this token provides a standard SD interface (per the SD specification) – including support of SPI communications for embedded applications. DFX-I memory tokens utilize solid over-molded construction using ultra-rugged composites that protect the embedded memory from harsh environmental influences, such as dirt, moisture, chemicals and electrostatic discharge. The tokens can also be OEM-branded with a company logo, used in place of the Datakey logo.



For pin-out information, refer to the individual data sheets for the SR42xx (PCB-mount) and SR43xx or SR44xx (panel-mount) receptacles.



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



The power of memory. Secured.

MECHANICAL	
Contact Life	10,000 Insertion/Removal Cycles Min.
Contact Arrangement	Fully Redundant (Front:Back)
ELECTRICAL	
Power, Active <sup>3</sup>	165 Milliwatts Typical at 3.3 V
Power, Standby <sup>3</sup>	6.6 Milliwatts Typical at 3.3 V
Voltage	3.3 V Operation and Programming
ESD Protection	15 kV (air), 10 kV (contact) Per IEC 61000-4-2
ENVIRONMENTAL	
Storage Temperature	-40°C to +85°C
Operating Temperature	-40°C to +85°C
Relative Humidity	5% to 95% (non-condensing)
Waterproof	Yes
MEMORY <sup>2</sup>	
Capacity Options (DFX-I) <sup>2</sup>	4 GB, 16 GB, 32 GB, 64 GB
Memory Type (DFX-I)	TLC NAND Flash
Capacity Options (DFX-IS) <sup>2</sup>	4 GB
Memory Type (DFX-IS)	pSLC NAND Flash (TLC)
EXTERNAL INTERFACE	
Interface	SD, SPI (per Secure Digital Specification)
Transfer Rate (SD)	Speed Class 10, Minimum
Clock Rate	Refer to SD Specification
MATING COMPONENT(S)	
PCB-mount Receptacles	SR4210/SR4220/SR4230 – PCB/SM
Panel-mount Receptacles	SR4210/SR4310/SR4410 Series (including IP-rated versions)
DFX PC Adapter (read/write)	607-0081-000A
DFX PC Adapter (read-only)	607-0081-001A
ORDERING INFORMATION	
DFX4G-I	611-0223-02xA
DFX16GB-I	611-0225-01xA
DFX32GB-I	611-0226-01xA
DFX64GB-I	611-0227-01xA
DFX4GB-IS	611-0229-00xA
DFX-I Development Kit, 4 GB	702-0093-007A
DFX-I Development Kit, 16 GB	702-0093-008A
DFX-I Development Kit, 32 GB	702-0093-009A
DFX-I Development Kit, 64 GB	702-0093-010A
DFX-IS Development Kit, 4 GB	702-0093-011A

- 1: "x" indicates optional color number. "A" suffix on part number indicates RoHS compliance. See CE declaration below for details.
- 2: Contact ATEK for additional memory capacity options.
- 3: DFX4GB-I uses 2D MLC NAND Flash and has a typical power usage of 248mW (active) and 17 mW (standby).

#### NOTES:

- Conforms with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011, and as amended by Directive 2015/863/EU, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
- DFX-I token was tested for CE conformity while connected with a DFX PC Adapter.
- EN 55022 Class A Statement: Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.



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