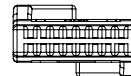
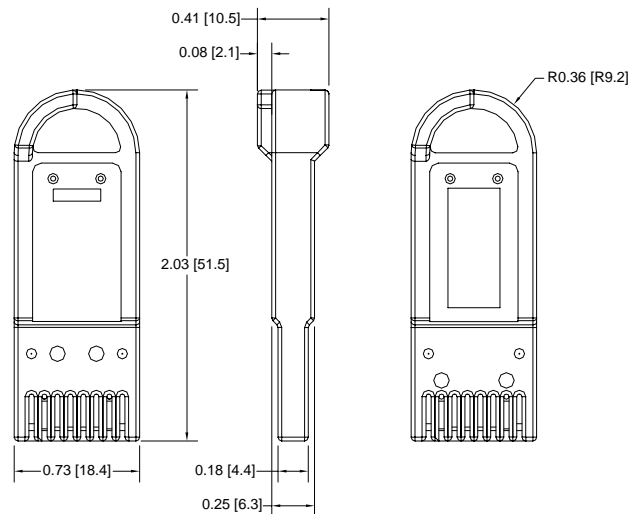


## NFX (NAND Flash) Series Managed-Memory<sup>®</sup> Extended Tokens

The ergonomic NFX Managed-Memory<sup>®</sup> Token is available with 128MByte to 1GByte of non-volatile NAND Flash memory. Managed-Memory is optimized for ease of integration into embedded systems. Host controllers can read, write, and erase data stored in the Token via an SPI bus interface. The same operations can be accessed via USB 2.0 through the convenient NFX Memory Interface or a user-built interface (reference design available). The NFX features an on-board file management system and efficient high-level command set that allows host firmware to interface to the Token with a minimum of programming overhead. Each Token has a factory-programmed unique serial number and optional OEM designator. The NFX provides the OEM with write-once registers that can be used for write protect, encryption seeds, software license protection, etc. Typical applications include “plan for the day” transfer, firmware updates, data logging and transfer. The NFX Token is constructed of tough, synthetic materials that protect the memory from harsh environmental influences including dirt, moisture, chemicals, X-rays, and electrostatic discharge. The NFX Token can be Autoclave- and EtO-sterilized. It conveniently and safely travels on users’ keychains and the thin profile and space-saving interface connection make the NFX well suited for use in compact systems. A wide range of mating Receptacles is available, contact factory for details.

Mechanical	
Token Contact Life	10,000 Insertion/Removal Cycles Min.
Contact Arrangement	Fully Redundant (Front:Back)
Mating Receptacle	50,000 Insertion/Removal Cycles Min.
Electrical	
Power, Active	200 milliwatts typical at 3.3V
Power, Standby	100 milliwatts typical at 3.3V
Voltage	3.3V operation and programming
ESD Protection	15kV
Environmental	
Storage Temperature	-40° C to + 100° C
Operating Temperature	-40° C to + 85° C
Relative Humidity	5% to 95% (non-condensing)
Waterproof	Yes
RoHS Compliant	Yes
Internal Memory Data	
Type	NAND Flash/Managed-Memory <sup>®</sup>
Capacity	128MB to 1GB
Organization	x8 bits, Large Page Format (2112B)
Read Cycles	Unlimited
Write/Erase Cycles	100,000 Cycles Minimum / Page
Data Life (Storage)	10 Years Minimum
Management	Internal File Management System
	ECC and Wear Management On-board
External Interface	
Interfaces	SPI and USB 2.0
SPI Clock Speed	20 MHz maximum
Programming	16 High-level commands

Registers	
Serial Number	48 bit factory-programmed
Unique OEM Code	16 bit factory-programmed (1/OEM)
OEM “write-once”	(64) 32-bit Registers
Mating Components	
Panel-Mount Receptacle	SR4210
PCB Mount Receptacle	SR4000 Family (SMT, THT)
USB Interface Module	NFX Interface (607-0077-000A)
Ordering Information <sup>1</sup>	
NFX	p/n assigned per customer/project
Development Kit	702-0078-000A



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

**NOTE:**

For pin-out information, refer to the individual data sheets for the SR4000 Family of Receptacles.

1: “A” suffix on part number indicates RoHS compliance.



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