

SR4220SM

Board-Mount Receptacles

SR4220SM board-mount receptacles mate with all Datakey SlimLine™, Extended SlimLine, and RUGGEDrive™ memory tokens (see token data sheets for more details). The SR4220SM receptacles feature a right-angle, board-edge design with surface-mount contacts. The receptacles can be pick-and-placed from their tray and are suitable for use in a reflow oven process.

As with all Datakey SlimLine token receptacles, this series features corrosion-resistant, gold-dot contacts that perform reliably over a wear life of at least 50,000 insertion/removal cycles⁴. The design employs a wiping mechanism to remove any debris or build-up on the token's contacts each time the token is inserted or removed. The receptacle includes a detent mechanism that gives users tactile and audible confirmation when an inserted token is physically engaged. The token/receptacle system also provides a Last-On/First-Off (LOFO) contact that is used by system designers to detect when a memory token has been inserted or removed (contact ATEK for token detection details for RUGGEDrive memory tokens). The SR4220SM receptacle is a modification of the SR4210SM, where the mounting flange has been removed for space savings. Since the mounting flange has been removed, special care must be taken in the design of the mounting of these receptacles to ensure that excessive stress is not placed on the leads.



MECHANICAL	
Contact Life ⁴	50,000 Insertion/Removal Cycles Min.
Insertion Force ⁴	400 gf Min. / 2 kgf Max.
Removal Force ⁴	300 gf Min. / 2 kgf Max.
Vibration	15 g (three axes) Non-operating
ELECTRICAL	
Contact Resistance	Beginning of Life: 100 mΩ
	End of Life: 500 mΩ
ENVIRONMENTAL	
Storage Temperature	-40°C to +105°C
Operating Temperature	-40°C to +85°C
Relative Humidity	5% to 95% (non-condensing)
MATING COMPONENT(S)	
Tokens	All SlimLine, DFX and UFX Tokens
ORDERING INFORMATION ^{1,2}	
SR4220SM	606-0055-004A

1: "A" suffix on part number indicates RoHS compliance. See CE declaration below for details.

2: Contact ATEK for part numbers of receptacles that ship in moisture bags (108/108 min/mult)

3: RST signal used on IIT series only.

4: Applications where a new token is used each time can reduce retention force prematurely.

NOTES:

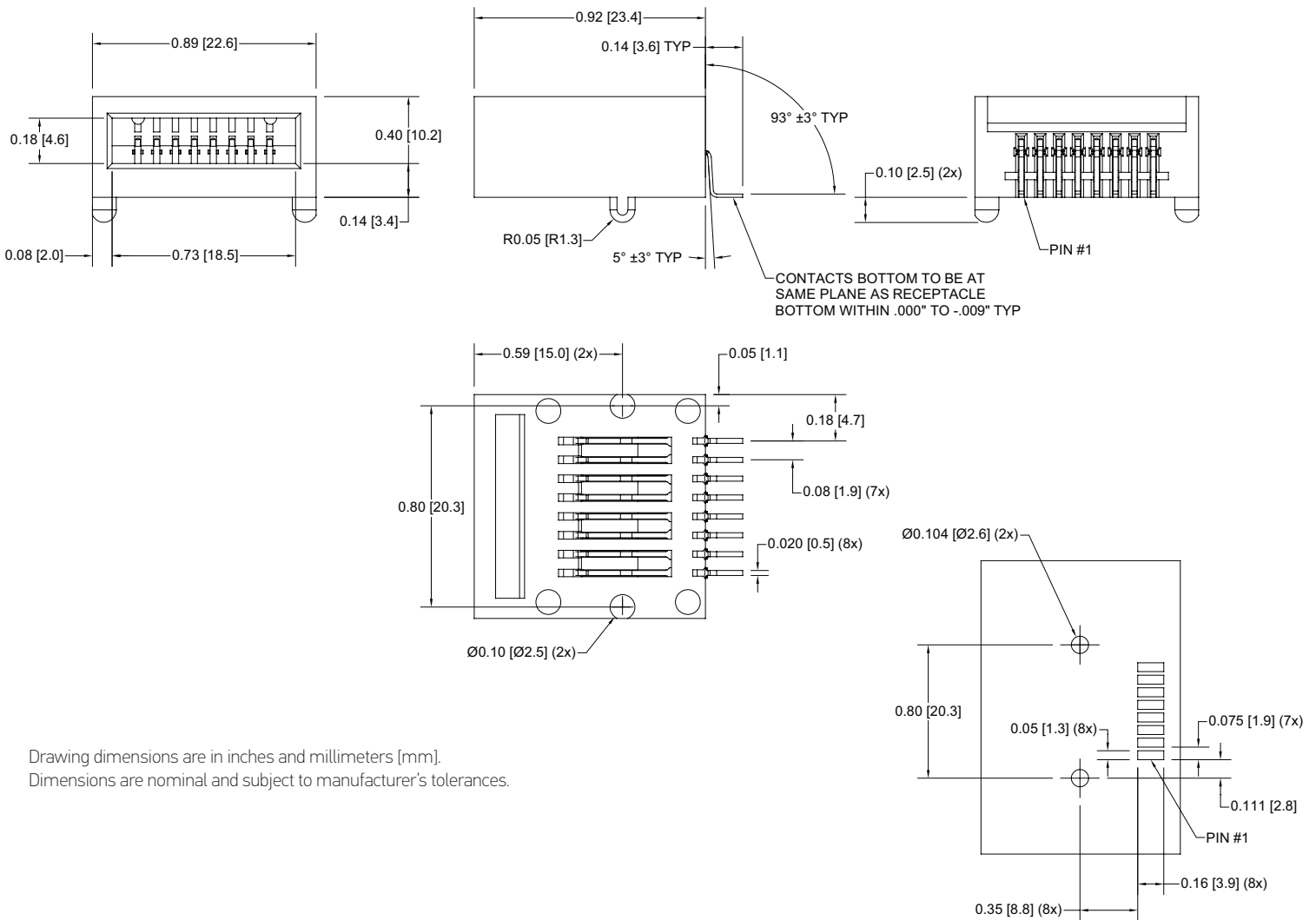
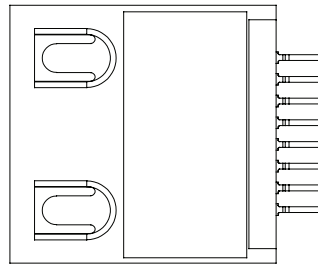
- Complete interface specifications available at www.datakey.com
- Refer to recommended reflow instructions at www.datakey.com
- Conforms with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011, and as amended by Directive 2015/863/EU, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.



 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

PIN-OUT CHART				RUGGEDRIVE™ LINE		
Pin	Microwire	I ² C	SPI	DFX (SPI)	DFX (SD)	UFX (USB)
Pin 1	LOFO	LOFO	/Hold	Reserved	DAT1	NC
Pin 2	Power (V _{cc})	Power (V _{cc})	Power (V _{cc})	Data Out (DO)	DAT0	+5V
Pin 3	Chip Select (CS)	SIZE / RST ³	/Chip Select (/CS)	Ground (GND)	VSS	NC
Pin 4	Serial Clock (SK)	Serial Clock (SCL)	Serial Clock (SCK)	Serial Clock (SCLK)	CLK	DM
Pin 5	Data In (DI)	NC	Data In (SI)	Power (V _{cc})	VDD	DP
Pin 6	Data Out (DO)	Serial Add/Data (SDA)	Data Out (SO)	Data In (DI)	CMD	NC
Pin 7	Ground (GND)	Ground (GND)	Ground (GND)	/Chip Select (/CS)	DAT3	GND
Pin 8	LOFO	LOFO	LOFO	Reserved	DAT2	NC

NC = No Connection



SUGGESTED SR4220SM RECEPTACLE PCB LAYOUT

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

221-0207-000 Rev. C 5/23

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