

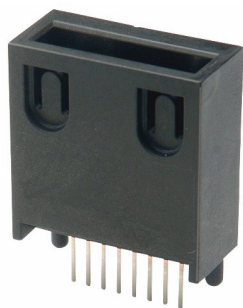
SR4220VRT

Board-Mount Receptacles



The SR4220VRT board-mount receptacle mates with all Datakey SlimLine™, Extended SlimLine, and RUGGEDrive™ memory tokens (see token datasheets for more details). The SR4220VRT is a vertical, board-mount receptacle. For right-angled board-edge designs, see the SR4220PCB and SR4220SM receptacles.

All Datakey SlimLine receptacles feature “gold dome” contacts that perform reliably over a wear life of at least 50,000 insertion/removal cycles and employ a wiping mechanism to remove debris or build-up on the token's contacts each time a token is inserted or removed. Also, SR4220VRT receptacles include a detent mechanism that contributes to token retention and gives users tactile and audible confirmation when an inserted token is fully engaged. The token/receptacle system 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 Access Technologies for token detection details for RUGGEDrive memory tokens)².



MECHANICAL

Operating Life ⁴	50,000 Insertion/Removal Cycles Minimum
Insertion Force ⁴	400 gf Minimum / 2 kgf Maximum
Removal Force ⁴	300 gf Minimum / 2 kgf Maximum
Mass	~5 grams

ELECTRICAL

Contact Resistance	Beginning of Life: < 100 mΩ
	End of Life: < 500 mΩ

ENVIRONMENTAL

Storage Temperature	-40°C to +100°C
Operating Temperature	-40°C to +85°C
Relative Humidity	5% - 95% (non-condensing)
Altitude	MIL-STD-810H, Method 500.6, Proc. I & II ≤40,000 ft (12,192 m)
Mechanical Shock	MIL-STD-810H, Method 516.8, Proc. I
Vibration	MIL-STD-810H, Method 514.8, Proc. I

MATING COMPONENT(S)

Tokens	All SlimLine and RUGGEDrive Memory Tokens
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ORDERING INFORMATION¹

SR4220VRT	606-0055-103A
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- 1: “A” suffix on part number indicates RoHS compliance. See CE declaration below for details.
- 2: Customers must design to meet Datakey interface specifications to provide for future memory device compatibility. Interface specifications available at datakey.com
- 3: RST signal used on IIT Series only.
- 4: Applications where a new token is used each time can reduce retention force prematurely.

NOTES:

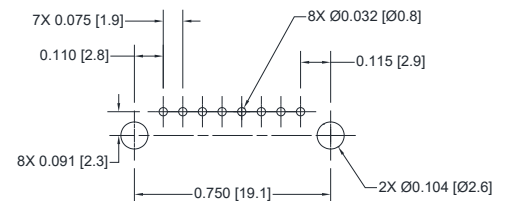
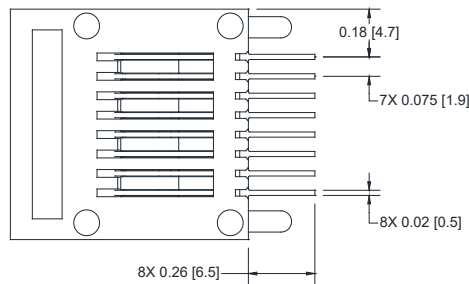
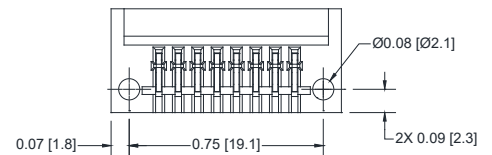
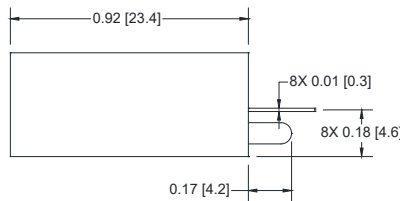
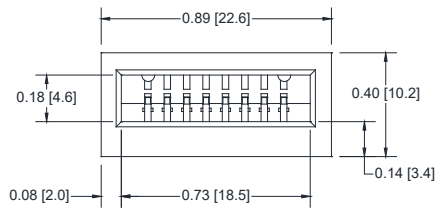
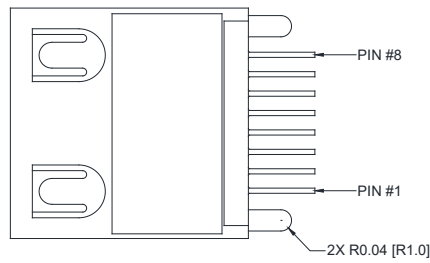
Conforms with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011, and as amended by Directive 2015/863/EU, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.



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

NC = No Connection

SR4220VRT



PCB RECEPTACLE PATTERN LAYOUT
(Top View)

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

221-0191-000 Rev. D 6/26

View our full product line at www.datakey.com

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