

## REGISTERED DDR2 RDIMM FORM FACTOR VARIATIONS

The following information will help you decide which module type of the Industrial Swissbit DDR2 RDIMM family to choose for your application. All modules follow the electrical and signaling standard of registered DDR2 DIMMs with ECC

### DDR2 STANDARD HEIGHT RDIMM



- highest density, for standard server platforms

#### Key data

- 133.35 mm x 30 mm x 4 mm
- 240 pin, 72 DQs, 18 DQS-Pairs
- 64 GND, 22 PWR, 34 C / A
- Jedec MO-237, variation AB

### DDR2 VLP/ULP RDIMM



- 0.7" height for blade and communication servers

#### Key data

- 133.35 mm x 17.9 mm x 4 mm
- 240 pin, 72 DQs, 18 DQS-Pairs
- 64 GND, 22 PWR, 34 C / A
- Jedec MO-237, variation DB

### DDR2 VLP MINIRDIMM



- 0.7" height for ATCA blades, RAID caches, small form factor servers  
 - Vertical orientation, small motherboard footprint while low height  
 - Best signal / GND / Power ration for small outline DIMMs

#### Key data

- 82 mm x 17.9 mm x 3.8 mm
- 244 pin, 72 DQs, 18 DQS-Pairs
- 64 GND, 22 PWR, 34 C / A
- Jedec MO-244

### DDR2 SO-RDIMM

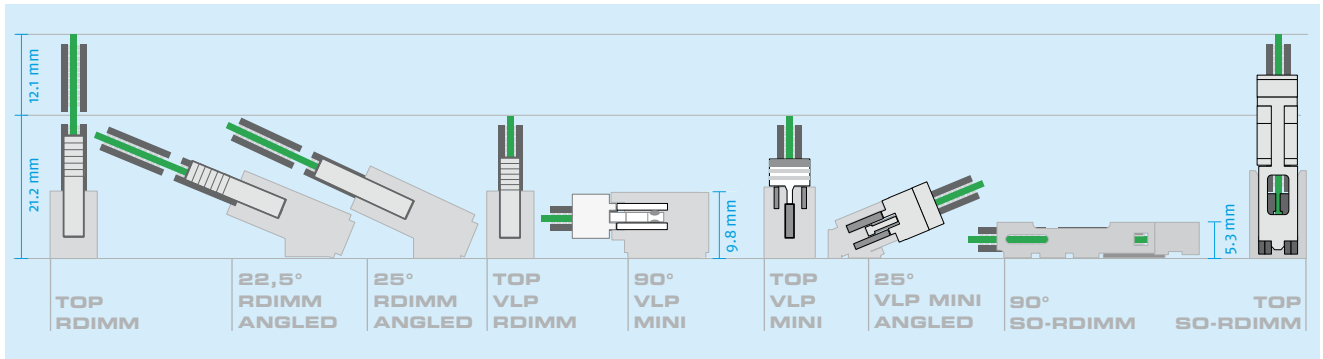


- Horizontal socket orientation → lowest system height  
 - Vertical socket orientation → smallest possible footprint  
 - Max 2 Rank per DIMM support

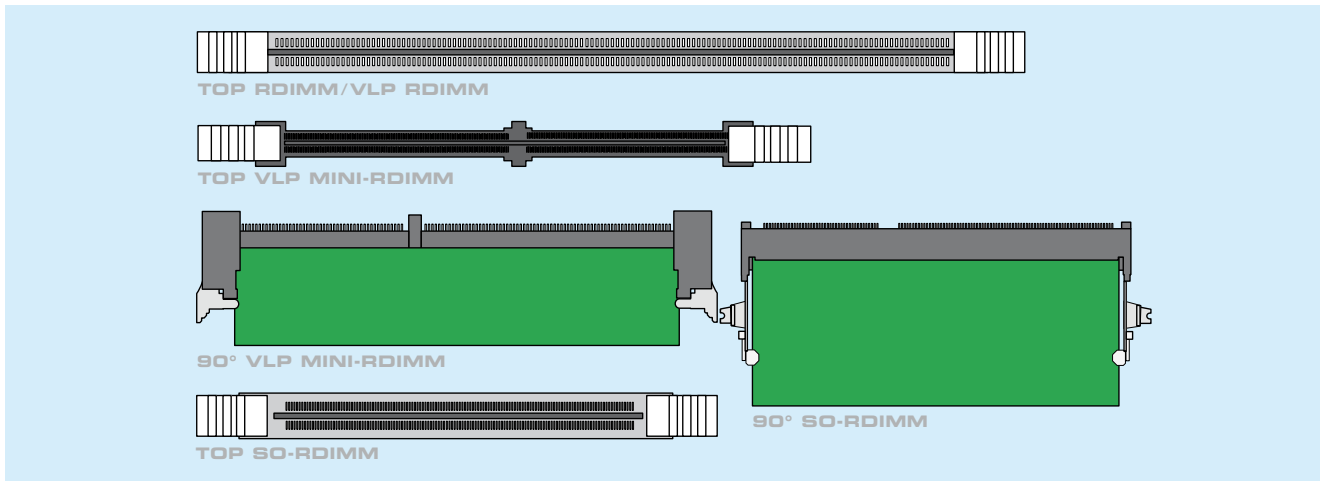
#### Key data

- 67.6 mm x 30 mm x 3.8 mm
- 200 pin, 72 DQs, 9 DQS-Pairs
- 54 GND, 9 PWR, 30 C / A
- Jedec MO-224 variation

## REGISTERED DDR2 RDIMM SPACE REQUIREMENTS



HEIGHT REQUIREMENT OF DIFFERENT MODULE / SOCKET COMBINATIONS



MOTHERBOARD SPACE REQUIREMENT

### FORM FACTOR DECISION MATRIX

	Orientation	Board space	Height requirement	Electrical Performance	Max DIMM Capacity	Cooling	Price per GB + socket
STD RDIMM	Top (std)	0	--	++	++	0	++
STD RDIMM	25°	-	0	++	++	-	+
STD RDIMM	22.5°	-	0	++	++	-	+
VLP RDIMM	Top (std)	0	0	++	+	+	+
VLP MINI RDIMM	Top (std)	+	0	++	0	+	0
VLP MINI RDIMM	25°	0	+	++	0	-	-
VLP MINI RDIMM	90°	-	+	++	0	--	-
SO-RDIMM	Top	++	--	+	0	++	-
SO-RDIMM	90° (std)	--	++	+	0	--	0

### REGISTERED DIMM COMPARISON

++ optimal solution; + good; 0 neutral; - some limitations; -- higher restrictions for design