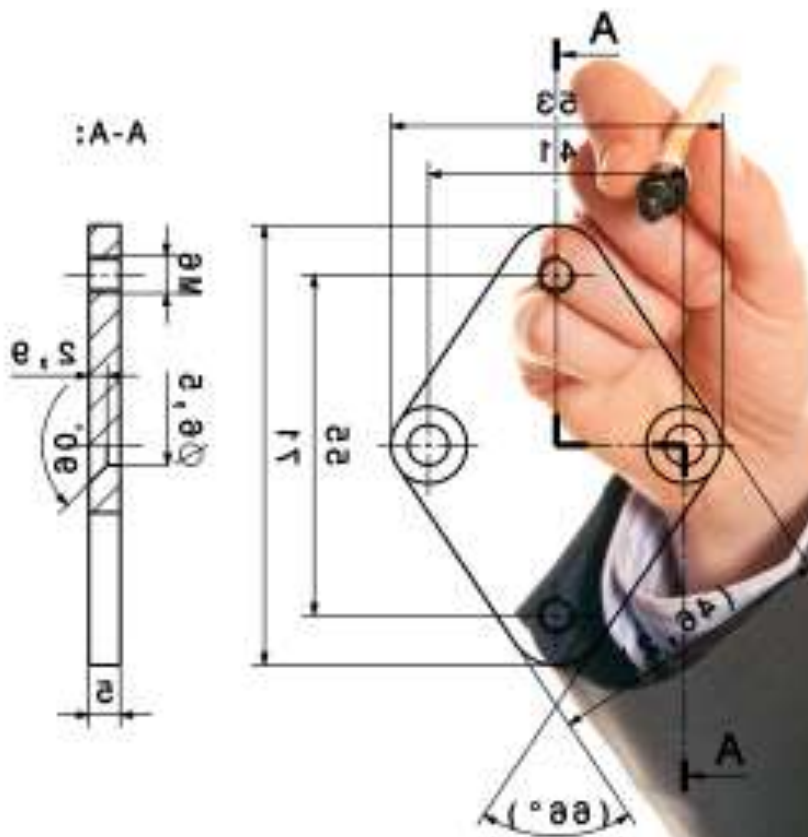
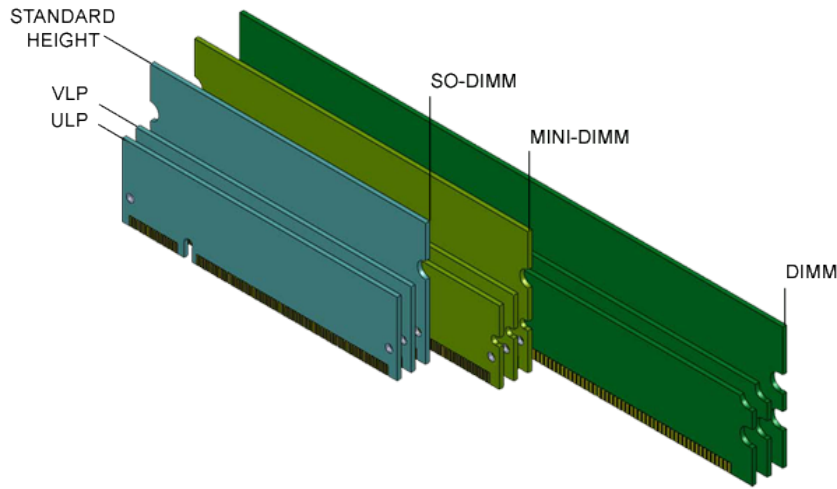


# Educational Resource Guide:

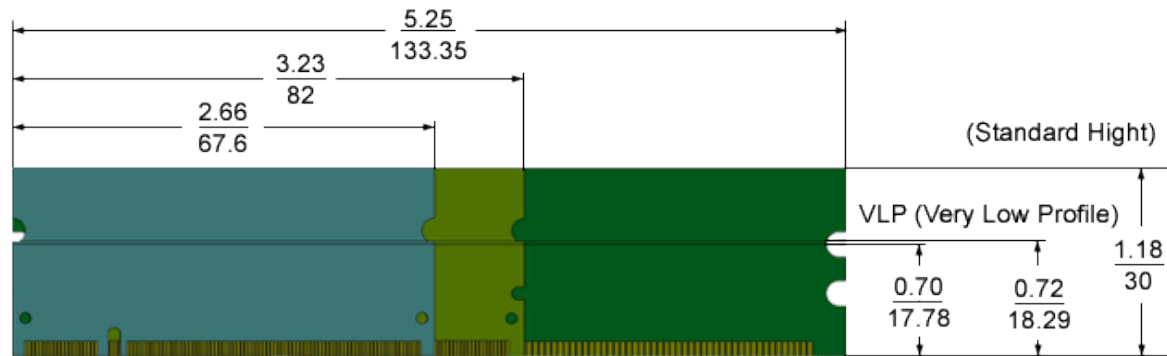
## DIMM Memory Module Dimensions

Including DIMM, R-DIMM, SO-DIMM, MINI-DIMM, MINI-RDIMM, MINI-UDIMM  
SO-CDIMM, VLP DIMM, VLP R-DIMM, VLP MINI-DIMM, VLP MINI-RDIMM,  
VLP SO-DIMM, VLP SO-RDIMM, VLP SO-UDIMM, VLP MINI-UDIMM Modules.





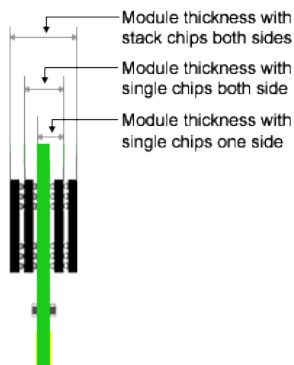
OVER ALL COMPARISON OF FORM FACTORS



Numbers of Pins	SO-DIMM	MINI-DIMM	DIMM	ULP (Ultra Low Profile) Virtium only
DDR	200Pins	N/A	184Pins	
DDR2	200Pins	244Pins	240Pins	
DDR3	204Pins	244Pins	240Pins	

Unit :  $\frac{\text{in}}{\text{mm}}$

MODULE DIMENSIONS FOR DIMM, MINI-DIMM, SO-DIMM WITH DIFFERENT HEIGHT



CHIP PACKAGE		SODIMM & MINIDIMM		DIMM	
		in	mm	in	mm
Monolithic	Chips on both sides	0.13	3.40	0.14	3.67
	Chips on one side	0.12	3.13	0.13	3.30
DDP		0.15	3.72	0.16	4.00
BGA Stack		0.31	7.82	0.32	8.07

Notes: Refer to Spec Sheet for modules with heatsink