

Annex F - Raw Card F

DDR4 SODIMM Design File

Raw Card	Applicable Design File	Applicable BOM
F0	PC4-SODIMM_V090_RC_F0_20140314.brd	PC4-SODIMM_V090_RC_F0_20140314-BOM.xlsx

Note 1 "Reference" design file updates will be released as needed. This DIMM specification will reflect the most recent design files, but may also be updated to reflect clarifications to the specification only. In these cases the design files will not be updated.

Module Configuration

SDRAM			DIMM					
Die Density	Die Organization	Package Type	# of Package Ranks per DIMM	# of SDRAM die per DIMM	Capacity per DIMM	Organization of DIMM	# of Address bits row/col ¹	MO-310 variation
2Gbit	256M x 8	SDP	2	18	4GB	512M x 72	14/10	AAxA
4Gbit	512M x 8	SDP	2	18	8GB	1G x 72	15/10	AAxA
8Gbit	1G x 8	SDP	2	18	16GB	2G x 72	16/10	AAxA
16Gbit	2G x 8	SDP	2	18	32GB	4G x 72	17/10	AAxA

Note 1 Address A16 is the highest address bit used based on it being multiplexed with RAS_n.

SDRAM Configuration

Supported DRAM Outline (Width x Length) max.	# of Banks in SDRAM BA/BG	SDRAM Package Type	Package Type	MO-207 variation
9.0 x 13.0	2/2	78 Ball FBGA	SDP	DW-z

Note 1 SDP is a single die per package.

Supported Speeds

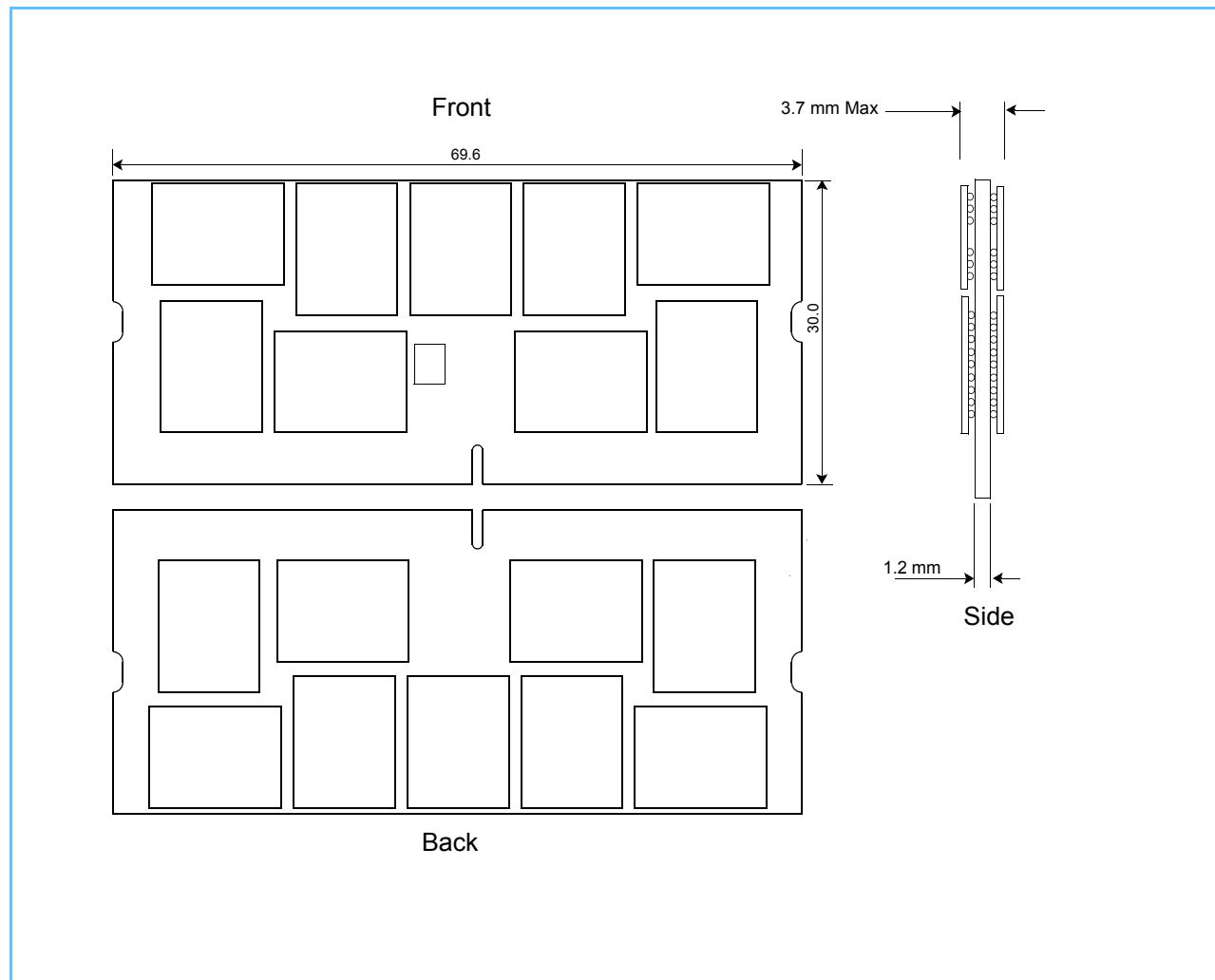
Raw Card	Speed	PC4-1333	PC4-1600	PC4-1866	PC4-2133	PC4-2400	PC4-2666	PC4-3200	Notes
F0	DDR4	P	P	P					1, 2
F0	DDR4L								1, 2

Note 1 X reflects speed grades approved from previous ballots.
Note 2 P denotes speed grades being proposed for this most recent ballot

Design Deviations

Note 1 None

General Layout

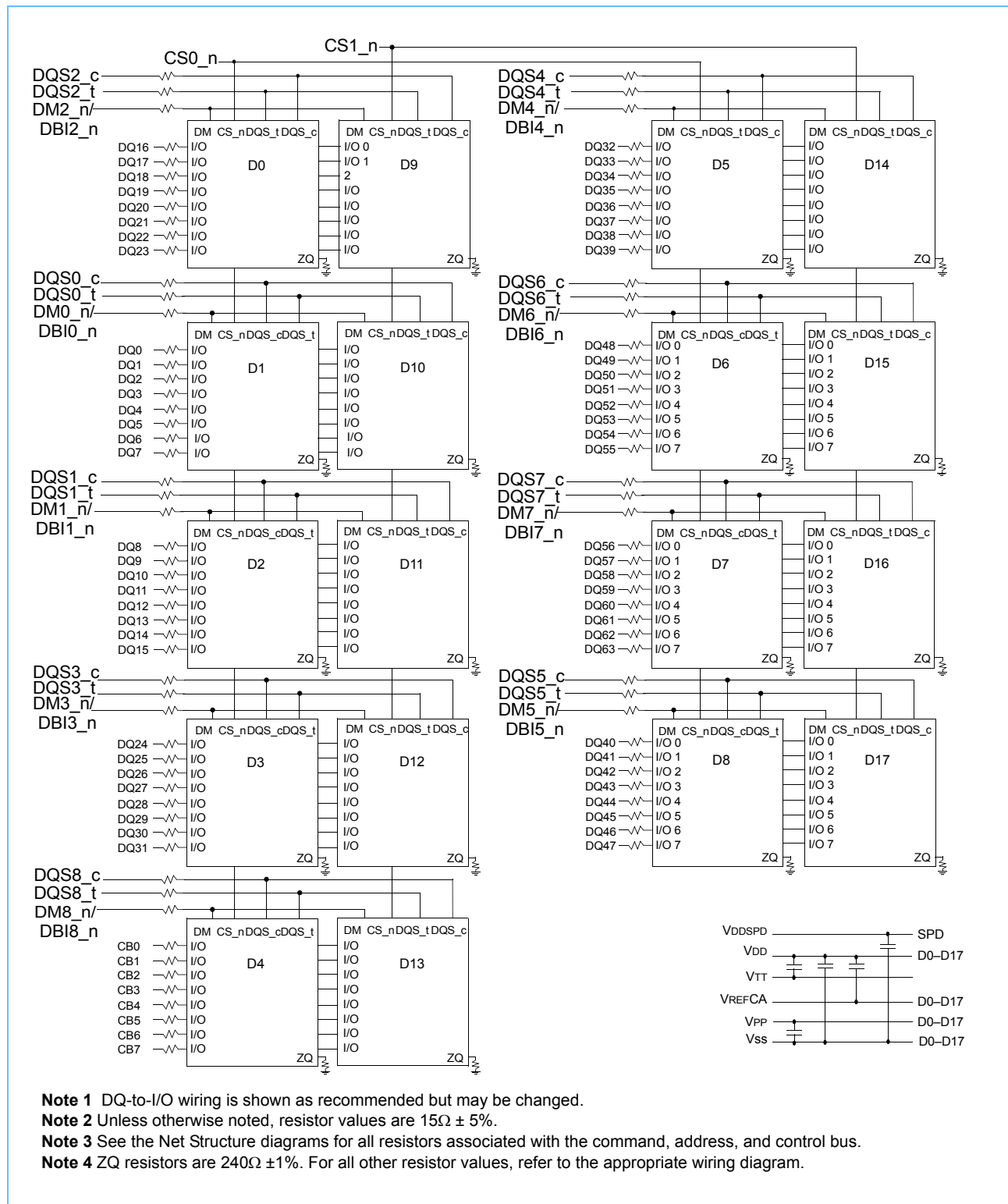


Note 1 Refer to MO-310 for more detailed information.

Note 2 Variation is AxxA (A: Module height, x: Module thickness, x: plating, A: DIMM Type).

Functional Block Diagram

x72 DIMM, populated as two package ranks of x8 DDR4 SDRAMs (Part 1 of 2)



Functional Block Diagram

x72 DIMM, populated as two package ranks of x8 DDR4 SDRAMs (Part 2 of 2)

