



Card Engine Mechanical Interface Specification

White Paper 064

Logic Product Development
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REVISION HISTORY

REV	EDITOR	DESCRIPTION	APPROVAL	DATE
A	Andrew Wawra	Release	AW	--
B	James Wicks	Format and Edit	HAR	11/25/03
C	James Wicks	Corrected Card Engine Hirose P/N information in Section 1.1	ER	11/23/04
D	Jed Anderson	Added RoHS P/Ns in Section 1.1; Added Ref. J1A and J1B to Digikey	ELH	4/18/06
E	Jed Anderson	Removed discontinued Hirose PNs; Added "Important Note" on clearance behind Card Engine; General formatting changes	HAR	10/27/06

1 Mechanical Specifications

1.1 Interface Connectors

The Card Engine connects to a Printed Circuit Board (PCB) through an industry standard 144-pin SODIMM connector (J1C) and two high-density 80-pin connectors (J1A and J1B). The 80-pin expansion connectors must have a 3 mm mating height (2.9 mm board-to-board).

Important Notes:

1. Do not place any components underneath the Card Engine on the same side of the board as the connectors. Some components on the Card Engine take advantage of the full mating height and their locations are subject to change as the board is revised. If the design requires that components be placed underneath the Card Engine, contact Logic Product Development for assistance.
2. If the product requires safe removal of the Card Engine during the product's lifecycle, the design should allow at least 7.65 mm (0.30") of clearance beyond the Card Engine's back edge (opposite of the SODIMM connector) before placing any baseboard components. This extra space on the baseboard provides room to use an extractor tool to safely remove the Card Engine from the baseboard without flexing the PCB. Please see Logic's White Paper 318 *Card Engine Insertion and Extraction Procedure* for more details.

REF	Mfr.	Card Engine P/N	Mating Connector P/N
J1A, J1B	Hirose	DF12(3.0)-80DP-0.5V(86)*	DF12(3.0)-80DS-0.5V(86)*
J1C	Amp	Card Engine	390112-1*

*Denotes a RoHS compliant part.

REF	Distributor	Distributor Webpage	Distributor Phone #
J1A, J1B	Bergquist	http://www.bergquistcompany.com/	(800) 347-4572
J1A, J1B, J1C	Digikey	http://www.digikey.com/	(800) 344-4539

Note: For J1A and J1B special quantities, provide Bergquist with Logic Product Development customer status.

1.2 Card Engine Support Spacers

Attach spacers between the Card Engine and application board to provide additional support.

Mfg.	Part #	Description	Distributor
Bivar	9908-3MM	Spacer, #4 3mm, Nylon	Future: http://www.futureelectronics.com/ Newark: http://www.newark.com/

1.3 Card Engine Mechanical Drawings

See the following figures for mechanical drawings of Logic's Card Engines.

Figure 1.1: Card Engine Mechanical Drawing

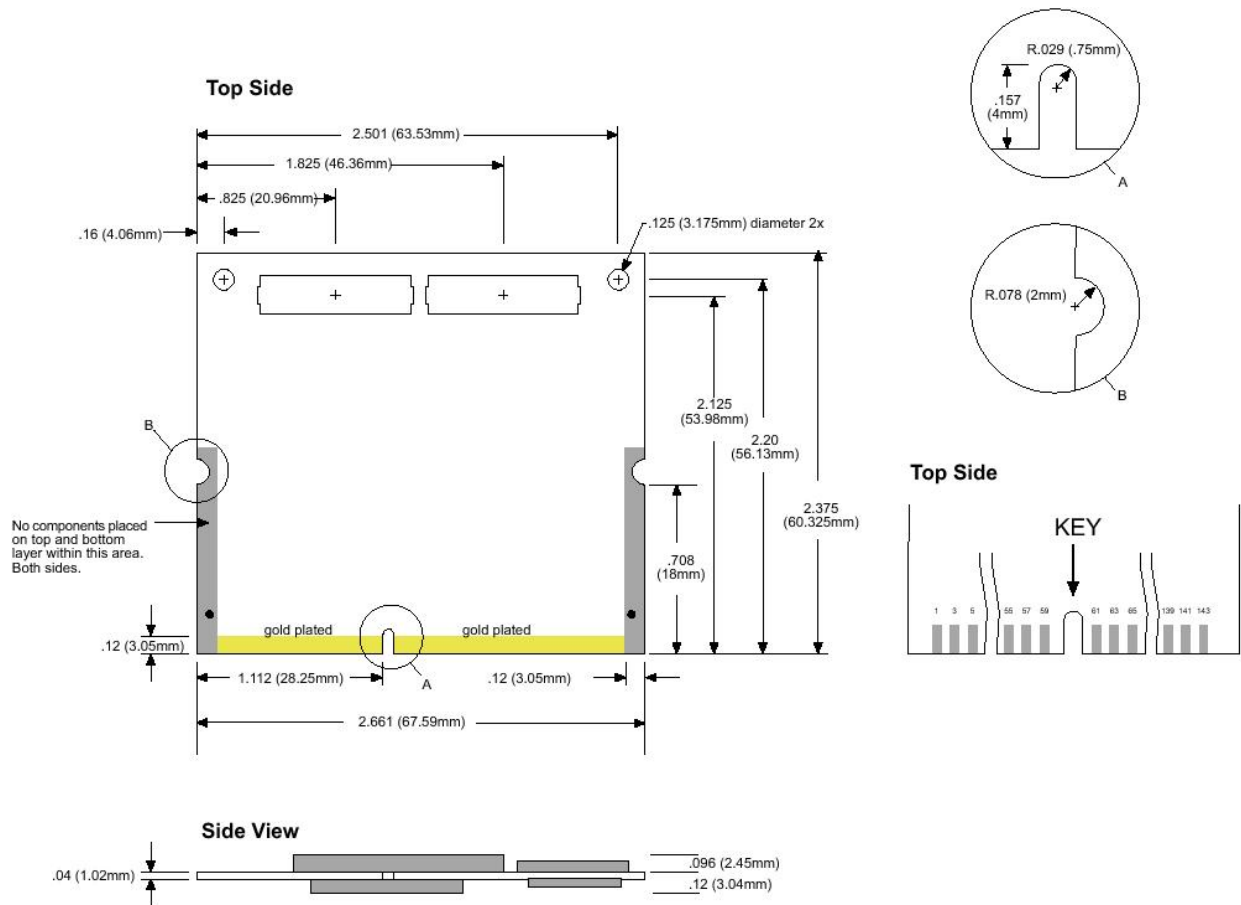


Figure 1.3: Recommended PCB Layout

