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TITLE DDR SO DIMM CONNECTOR OPERATION SPECIFICATION		PAGE 1 of 9	REVISION A
		AUTHORIZED BY Bill Lin	DATE Aug/20/08
CLASSIFICATION UNRESTRICTED			

1.0 OBJECTIVE

This specification provides information and requirements regarding customer application of SO (Small Outline) DIMM (Dual In-Line Memory Module) 144-position sockets with 0.8mm pitch and 200-position sockets with 0.6mm pitch connectors. This specification is intended to provide general guidance for process development. Customers need develop their own processes to meet their needs since this is a general guideline just for connector handling.

2.0 SCOPE

This specification provides information and requirements regarding customer application of SO DIMM connectors.

3.0 REFERENCE DOCUMENTS


Product drawing: SO DIMM 144P --- 10062086
DDR1 200P --- 10069102
DDR2 200P --- 59355/10033853/10033854
Product specification: SO DIMM 114P --- GS-12-364
DDR2 --- GS-12-195

JEDEC SO-xxx for DDR1/2 200P
JEDEC SO-008 for SO DIMM 144P

4.0 GENERAL

This document is meant to be an application guide. If information varies from that in the product drawings and product specifications, the drawings take precedence.

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5.0 APPLICATION INFORMATION

5.1 General Product Information

There are standard and reverse types available for FCI DDR SO DIMM connectors. There are generally white and black housing, solder tail to be Tin-lead, Pure Tin or gold flash plated per product drawing list.

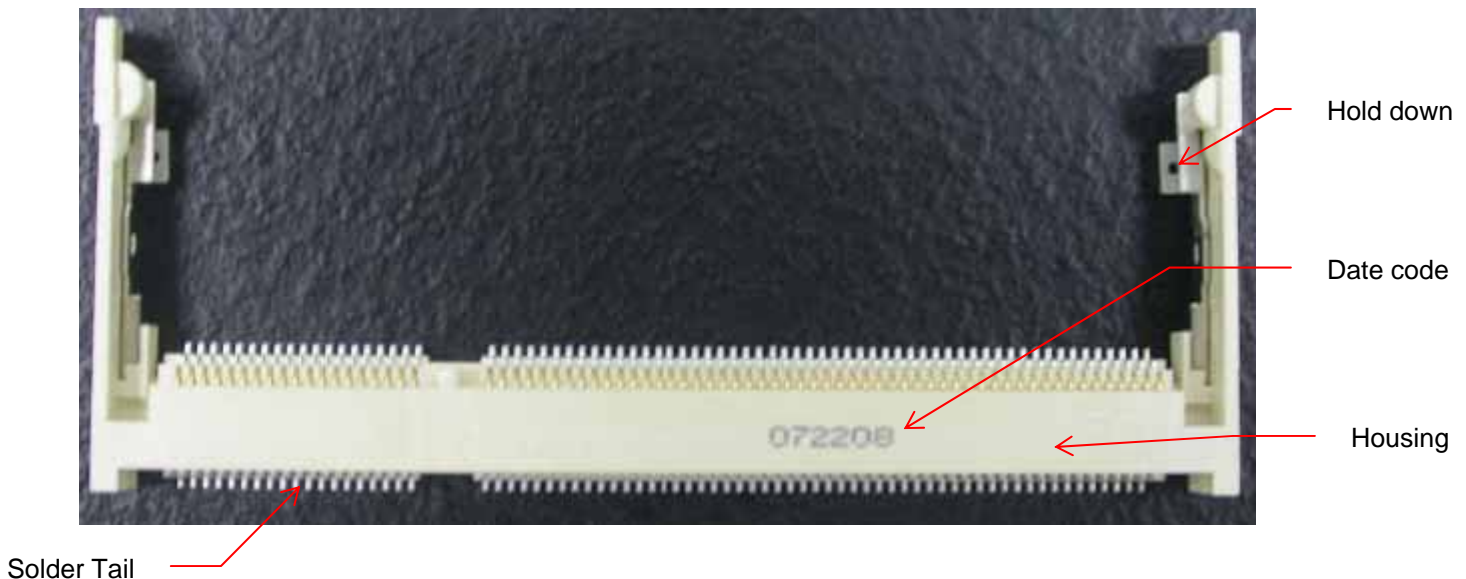



Figure 1: SO DIMM connector profile

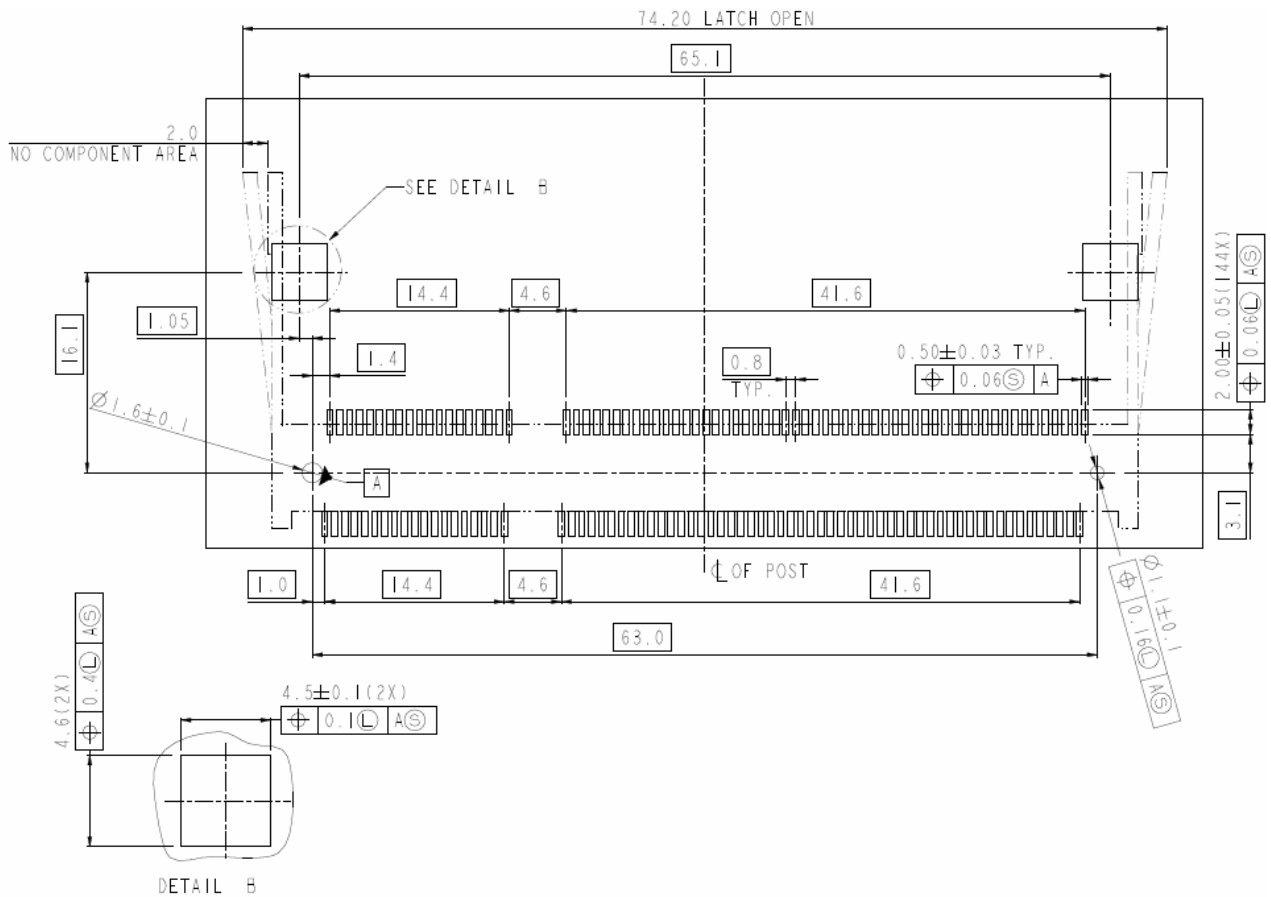
- There are 144 positions SO DIMM and 200 positions DDR1/2 SO DIMM connectors, whose solder tails are Tin-lead or Pure Tin plated or gold flash. The solder tails are all within 0.10mm co-planarity.
- The connector can withstand exposure to 260 °C peak temperature for 10 seconds in re-flow soldering application. (Refer to 5.2 for recommended re-flow profile.)
- Date code to be printed on top surface of the housing.
- The connectors can accommodate 144 SO DIMM, DDR2 module card which meet JEDEC MO-274, MO-224 specification.
- Footprint compatible with JEDEC specification. SO-008 for SO DIMM 144P, SO-xxx for DDR1/2 200P.

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5.2 Operation guideline

5.2.1 Recommended footprint :

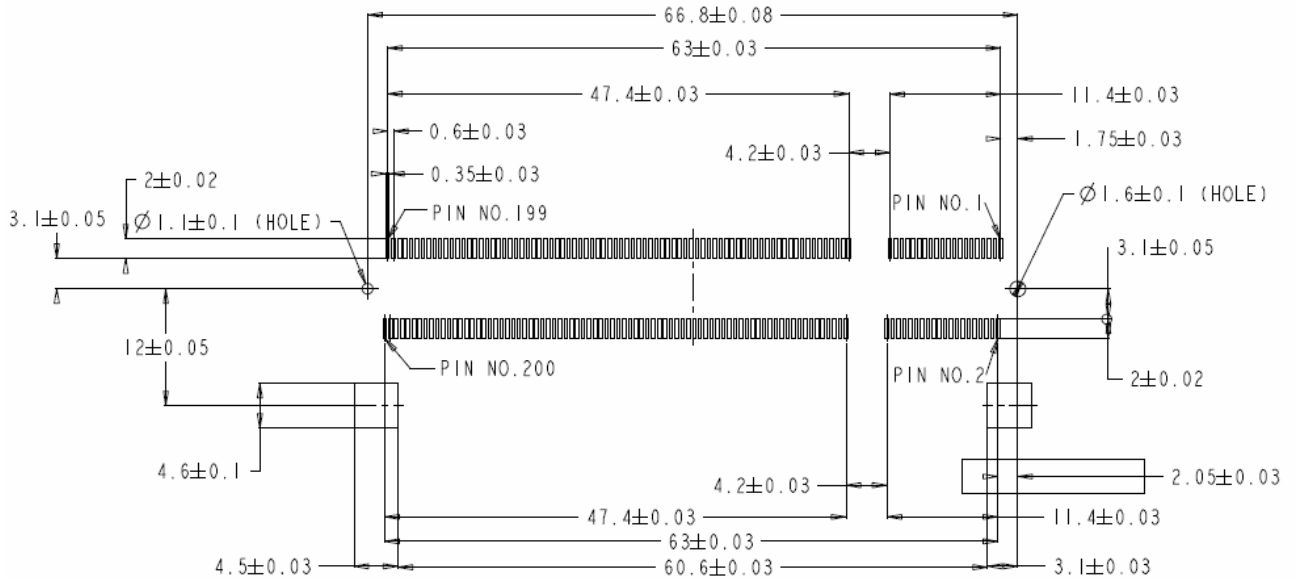
The recommended footprint and pad size are shown as below figures.



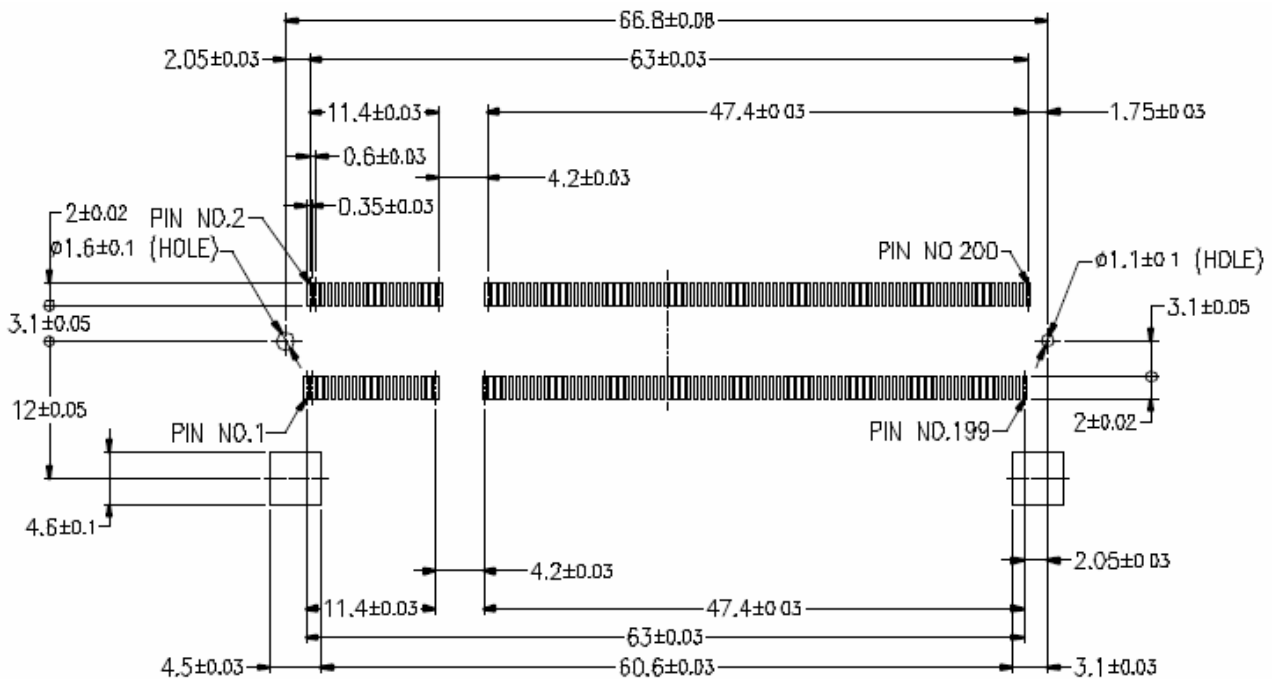
SO DIMM 144P standard footprint




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DDR1/2 SO DIMM standard type footprint



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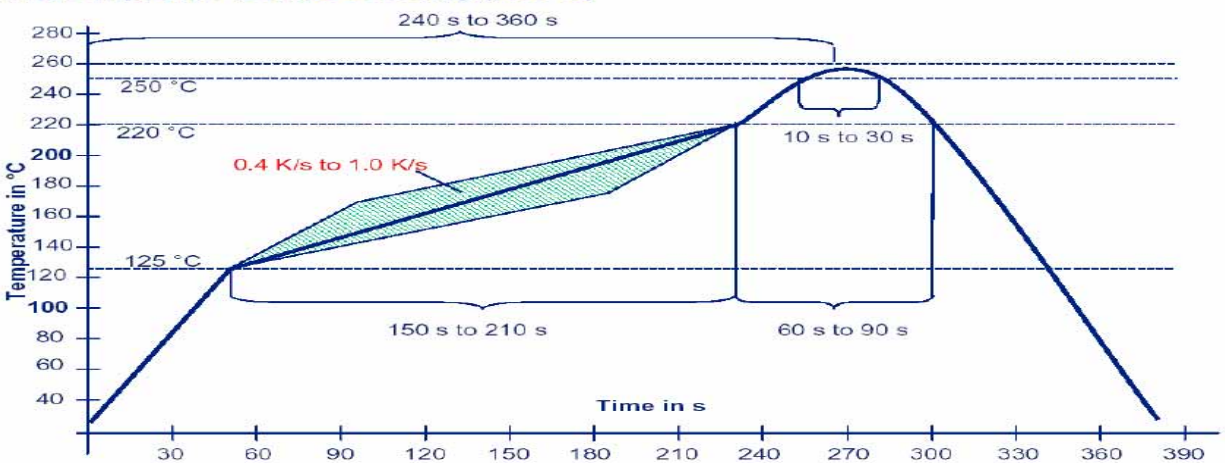
DDR1/2 SO DIMM reverse type footprint

5.2.2 Recommended solder paste Stencil thickness to be 0.15mm min. Solder mask is recommended between all pads to prevent bridging.


5.2.3 Recommended re-flow profile:

The below are recommended profile for lead-free type DDR SO DIMM connector mount onto PC Board.

Reflow profile for MSL testing (260°C)



Preheat	125 °C to 220 °C 150 s to 210 s @ 0.4 K/s to 1.0 K/s
Time at T>185 °C	60 s to 90 s
Peak temperature	260 °C -5/+0 °C
Peaktime	10 s to 30 s (≥ 250 °C)
Cooling rate	≤ 6 K/s
Time from 25 °C to peak	240 s to 360 s

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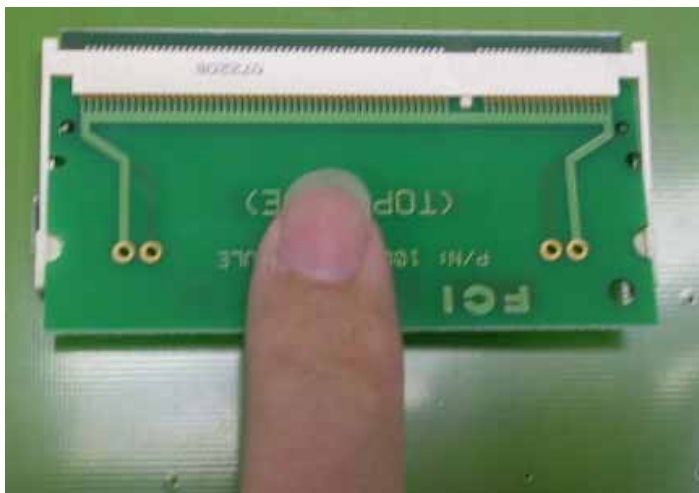
5.2.4 Insert Module card into connector:

The below steps are recommended procedure for insert module card into connector:




1. After connector wave soldered on a PC board. Insert a module card into the connector slot along about 25 degree direction.

将连接器用波峰焊连接到 PC 板后, 将内存卡倾斜约 25 度斜插入连接器槽中。



2. Place a finger in the middle of the card and press the card down until the card is locked by the housing beams.

把一根手指放在内存卡的中间往下压, 直到内存卡被塑胶的两臂锁住为止。

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3. Check if the card is locked in right position.
检查内存卡是否已经锁在正确的位置上。



4. It's incorrect to press the card down by aside.
从一侧压卡是不正确的操作手法。



5. The same as above.
同上。

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6. It's incorrect that only one side of the card is locked.
卡只有一侧被锁住是不正确的。

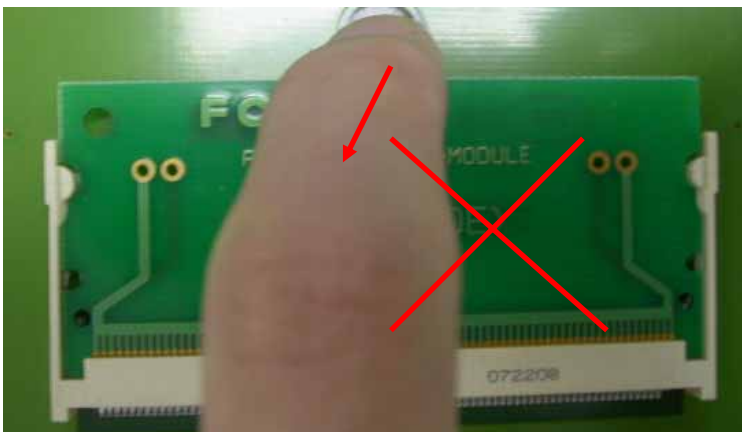


7. The same as above.
同上。


5.2.5. Remove the Module card form connector



1. Open the housing two beams as picture to release the card.
如图打开塑胶的两臂让卡松脱。



1. It's not permitted to pull out the card when the card is still locked.
当卡仍在锁住的状态下不允许直接把卡往上撬出来。。

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Revision Record

EVISION	PAGE	DESCRIPTION	ECN	DATE
A	ALL	NEW RELEASED	DG08-0235	Aug-20-08