Product Application Specification For 0.65pitch Vertical Slim Cool edge Connector

REVISION RECORD

REV	PAGE	DESCRIPTION	ECN#	DATE	Prepare By
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E	8	REVISE	CD1356	2018-07-25	Matt.liu

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_____	_____	_____	_____
(Product Engineer)		(Engineering Manager)	

TABLE OF CONTENT:

1. OBJECTIVE

This specification provides information and requirements for customer application of the 0.65pitch vertical Slim Cool edge connector. It is intended to provide general guidance for process development. It should be recognized that no single process will work under all customer applications and the customers should develop processes to meet individual needs. However, if the processes vary from the recommended one, Amphenol cannot guarantee acceptable results.

2. SCOPE

This specification provides information and requirements regarding application of 0.65 pitch vertical Slim Cool edge connector to printed circuit boards (PCB). The connectors are designed for mother/daughter board applications and will accept different thickness of daughter card. They are available with multiple contacts.

3. DRAWING AND APPLICABLE DOCUMENTS

- Amphenol Product Specification S-SE-004
- Application Amphenol Customer Drawings

Amphenol product drawings and specifications are available by accessing the Amphenol website or contacting the Amphenol Technical Service. In the event of a conflict between this specification and the product drawing, the drawing takes precedence. Customers should refer to the latest revision level of Amphenol product drawings for appropriate product details.

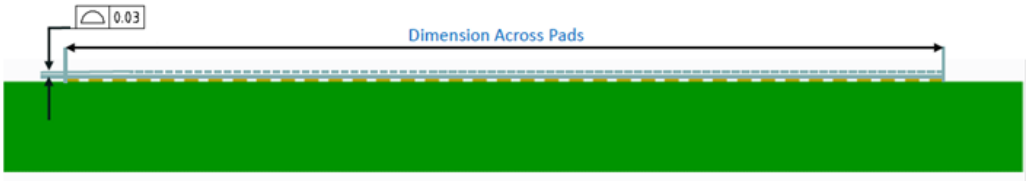
4. PC BOARD REQUIREMENTS

4.1 MATERIAL AND THICKNESS

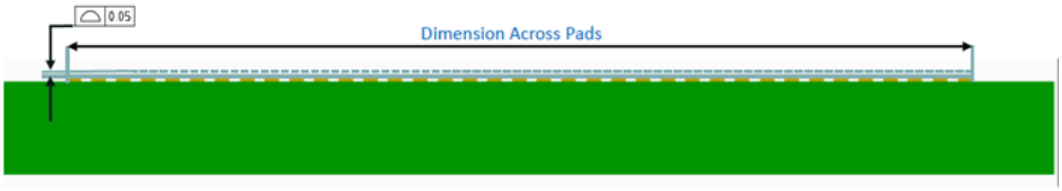
The pc board material shall be glass epoxy (FR4 or G-10).

4.2 MOTHER BOARD COPLANARITY TOLERANCE

Maximum allowable bow (co-planarity) shall be 0.03mm across the length of the pad area In the case of 0.13mm thick solder paste



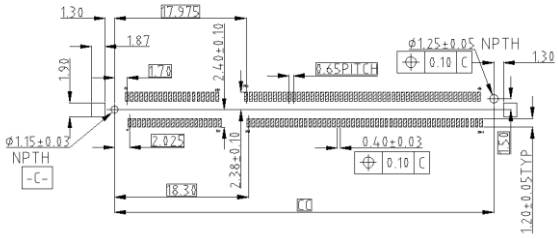
Maximum allowable bow (co-planarity) shall be 0.05mm across the length of the pad area In the case of 0.15mm thick solder paste.



4.3 LAYOUT

The holes for the connector assembly must be precisely located to ensure proper placement and optimum performance of the connector assembly. Recommended general holes, pads, dimensions, and tolerances are provided in Figure 2 to 5. It's a general layout, please refer to appropriate sales drawing for recommended PCB layout and thickness for each parts

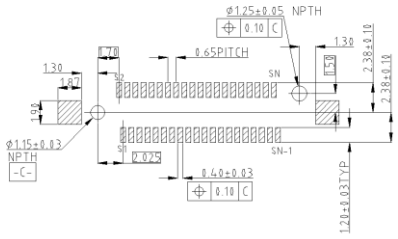
FOR 1.6mm EDGECARD WITH KEY



GENERAL PCB LAYOUT FOR MOTHER BOARD
(YOUR CONFIGURATION MAY VARY)

FIGURE 1

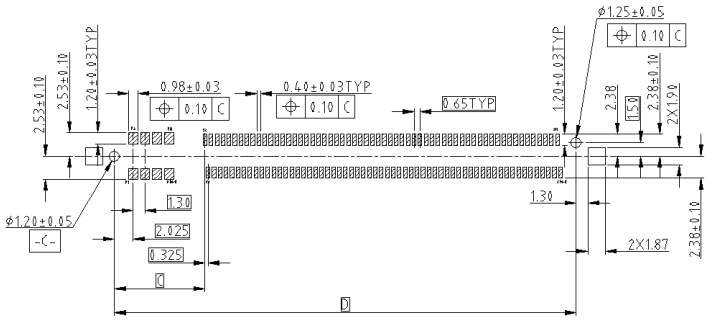
FOR 1.6mm EDGECARD WITHOUT KEY



GENERAL PCB LAYOUT FOR MOTHER BOARD
(YOUR CONFIGURATION MAY VARY)

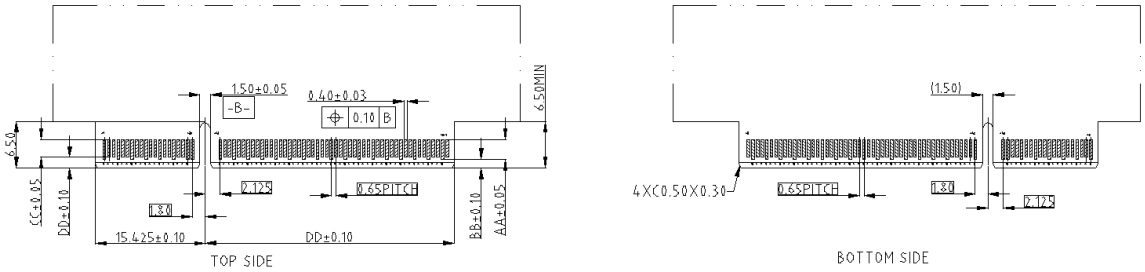
FIGURE 2

FOR 1.6mm EDGECARD Hybrid-Power and Signal



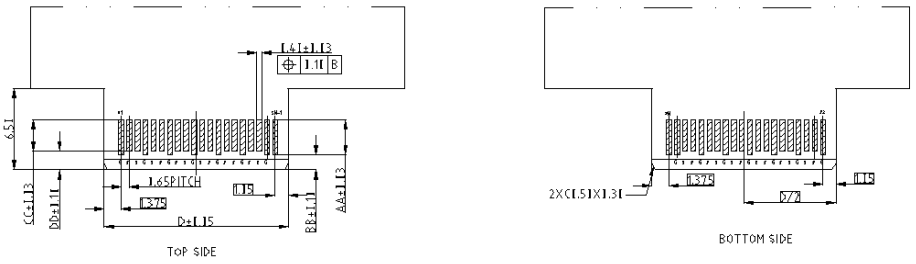
GENERAL PCB LAYOUT FOR MOTHER BOARD
(YOUR CONFIGURATION MAY VARY)
FIGURE 3

FOR 1.6mm EDGECARD WITH KEY



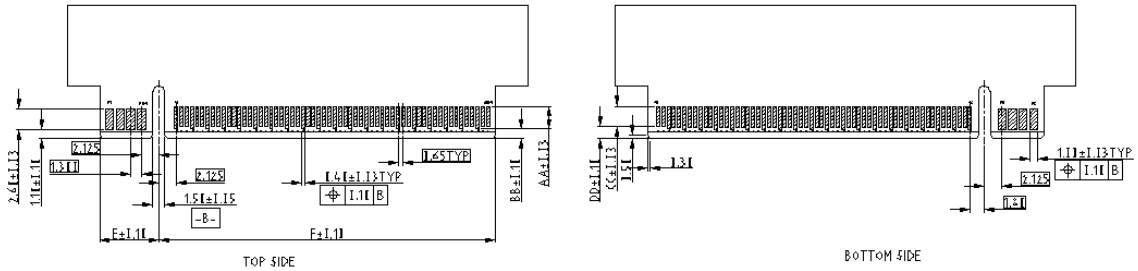
GENERAL PCB LAYOUT FOR MATING CARD
(YOUR CONFIGURATION MAY VARY)
FIGURE 4

FOR 1.6mm EDGECARD WITHOUT KEY



GENERAL PCB LAYOUT FOR MATING CARD
(YOUR CONFIGURATION MAY VARY)
FIGURE 5

FOR 1.6mm EDGECARD WITH KEY(Hybrid)



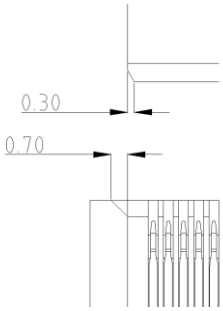
GENERAL PCB LAYOUT FOR MATING CARD
(YOUR CONFIGURATION MAY VARY)
FIGURE 6

RESISTANCE (OHM)	DIMENSION			
	AA	BB	CC	DD
85	2.80	1.20	2.50	1.50
100	2.30	1.70	2.00	2.00

5. MATING AND ALIGNMENT

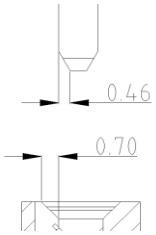
5.1 GATHERABILITY IN “X” DIRECTION

Nominal misalignment correction in “X” DIRECTION:+/-1.0mm



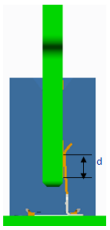
5.2 GATHERABILITY IN “Y” DIRECTION

Nominal misalignment correction in “Y” DIRECTION:+/-1.16mm

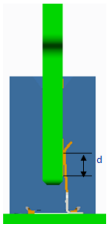


5.3 WIPE LENGTH

Signal pin: d=2.00mm(85OHM); d=1.5mm(100OHM)



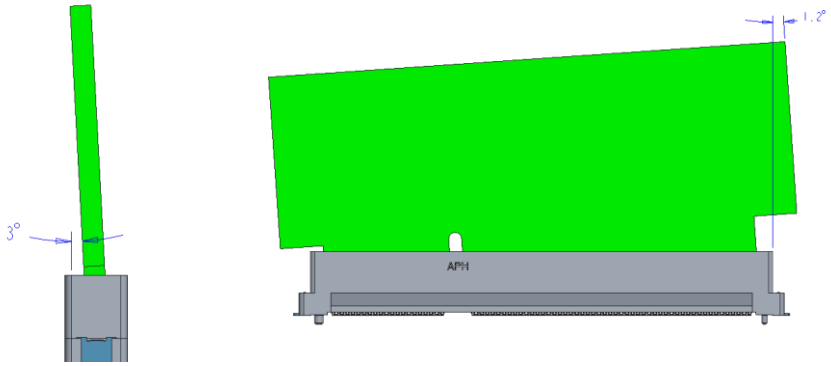
Power pin: d=2.10mm



Notes:

This is a generic calculation based on Amphenol Cool edge tolerances and may be impacted by the PCB manufactures capabilities.

5.4 TILT AND SKEW

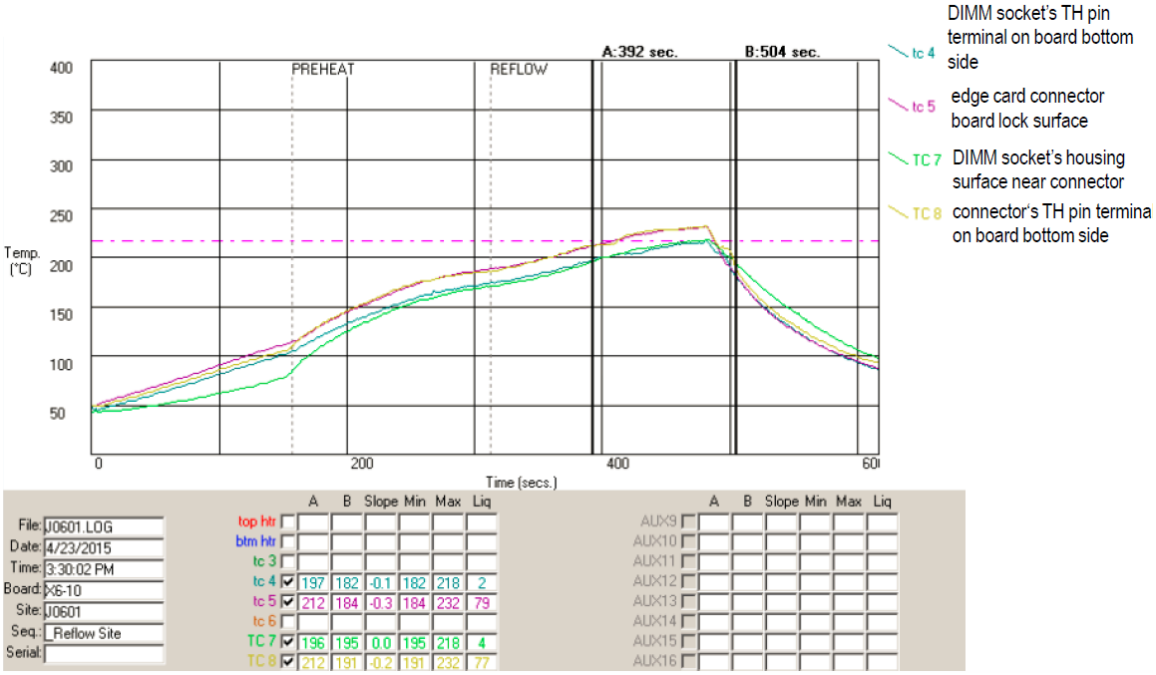


Notes:

1. This is a generic calculation based on Amphenol Cool edge tolerances and may be impacted by the PCB manufactures capabilities.

6. RECOMMENDED REWORK PROCESS

It can be reworked well under BGA rework station, and it needs to re-design and make mini-stencil to print those TH pins together with SMT pads, it also needs to add a shield wall, it can avoid socket's housing material melting or bubble defect. The recommended rework profile is below.



7. CURRENT RATING FOR ONE SIGNAL PIN

Please refer to below table for current rating

PIN COUNT	CURRENT(A)
10pin	1
20pin	0.8
60pin	0.6
280pin	0.5

8. CURRENT RATING FOR ONE POWER PIN

Please refer to below table for current rating

PIN COUNT	CURRENT(A)
Up to 8pin	3
Up to 12pin	2.5