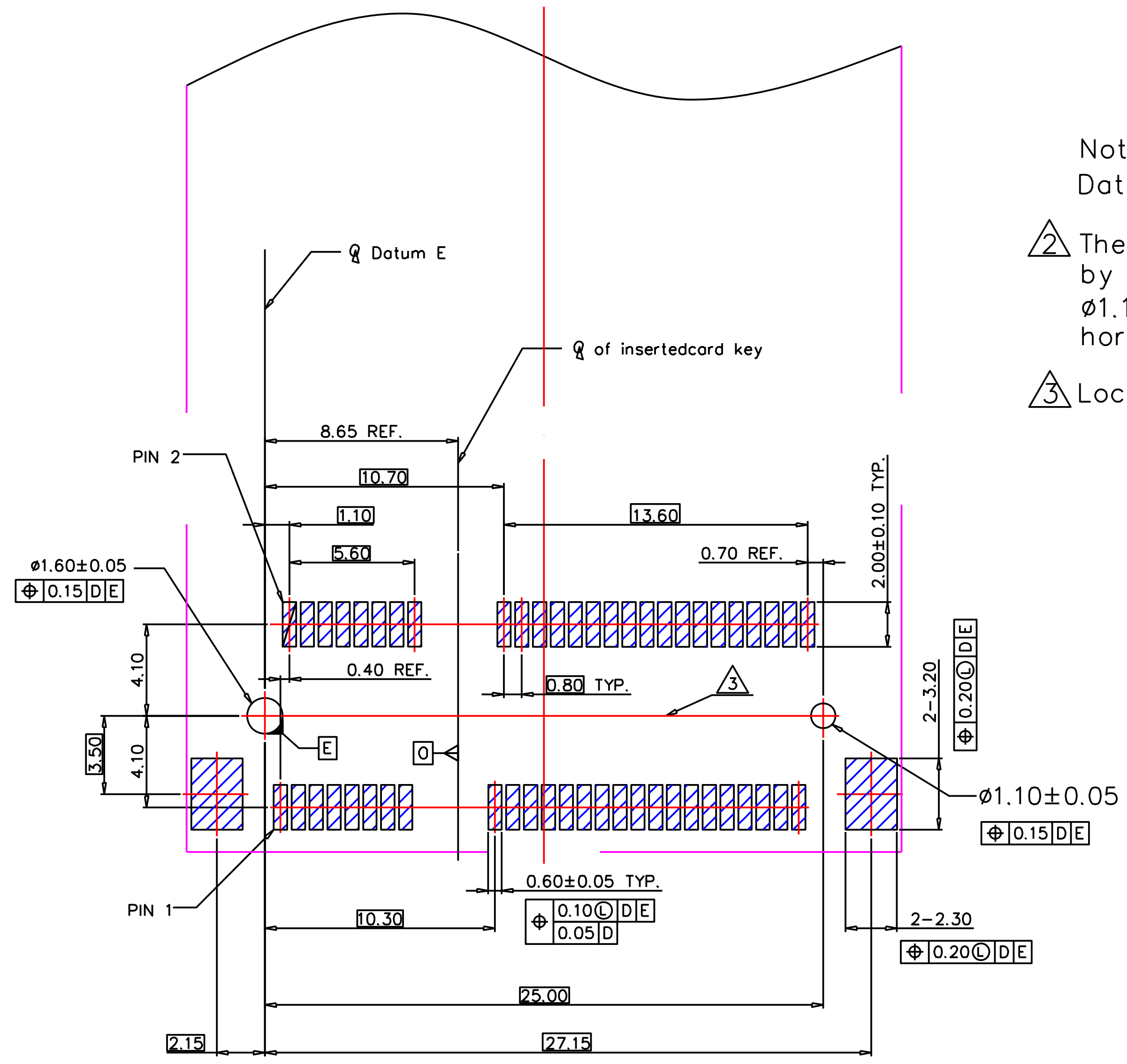


Recommended SystemBoard Layout

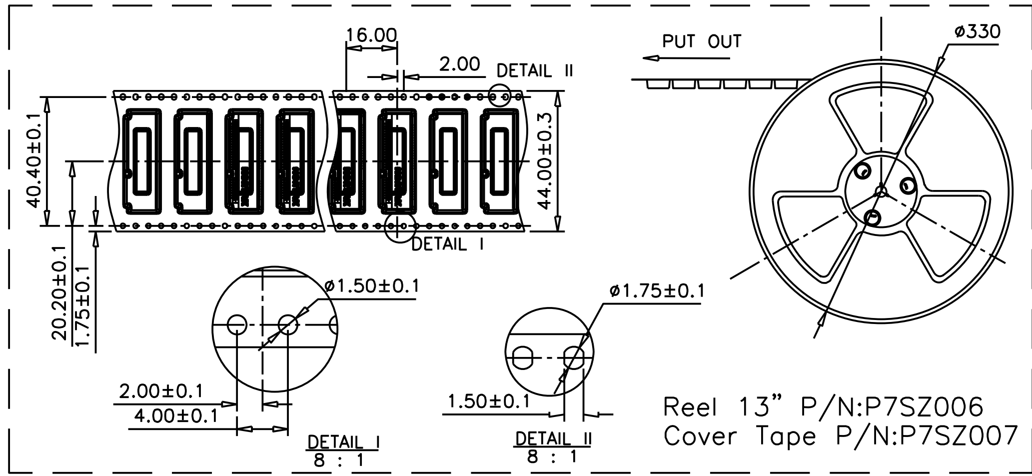
Notes:

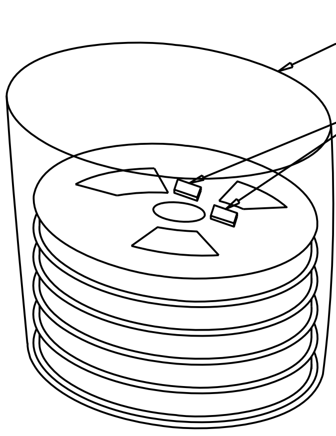
Datum D is the top surface of PCB

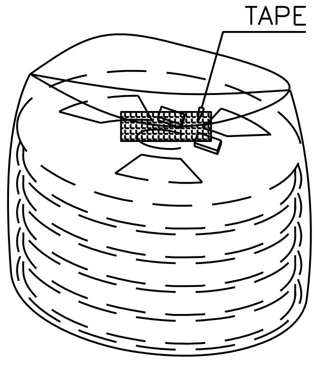
2. The horizontal axis for the pattern is established by a line through the center of the ø1.60 and ø1.10 holes. The vertical axis is 90° to the horizontal axis, through the center of datum E.

3. Location of inserted card edge is aligned with of holes.

TOLERANCE UNSPECIFIED	HK HONGKE SCIENCE TECHNOLOGY CO.,LTD.			
.XXX ±	NAME	Mini PCI Express Card System Board Layout "RoHS Compliance"		
.XX ±0.15				
.X ±0.25				
ANGLE ±				
DRAWN Jason	SCALE 3 : 1	UNIT mm	SHEET 1/1	REV 1.1
CHECKED	"RoHS Compliance"			
APPROVED	DRAWING NO. RFD-SZ-C009			





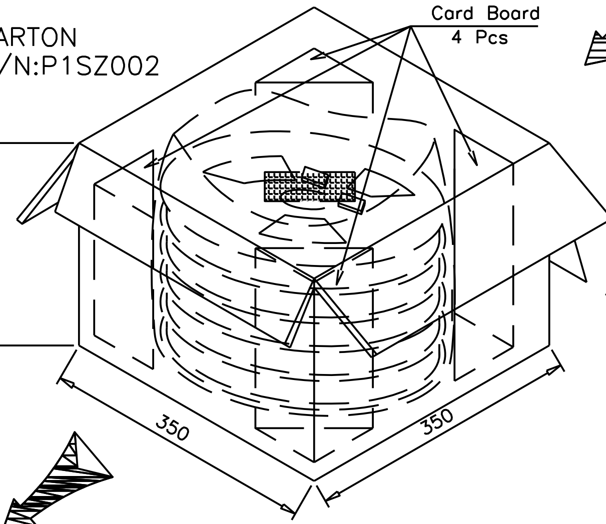


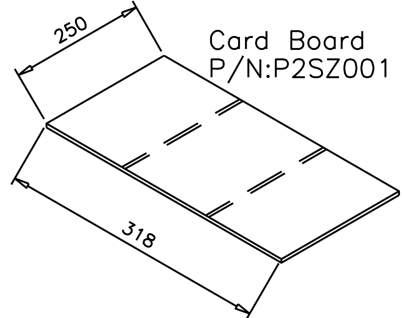
Notes:

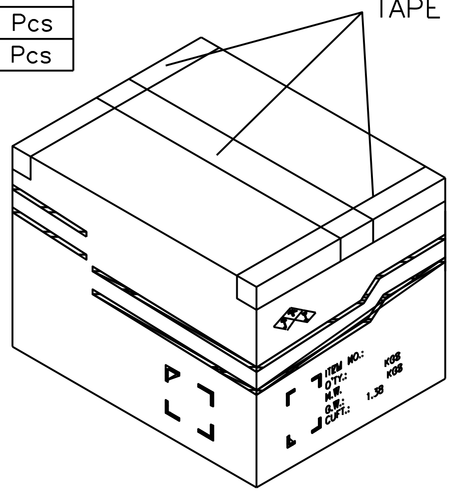
1. Peel off force of top tape: 0.1~1.3N

Pack Quantity:

Socket H	Carrier P/N	Qua/Reel	Qua/Carton
4.0	P7SZ005	700 Pcs	3500 Pcs
5.2	P7SZ008	500 Pcs	2500 Pcs
5.6	P7SZ010	500 Pcs	2500 Pcs
6.75	P7SZ003	400 Pcs	2000 Pcs
8.0	P7SZ009	400 Pcs	2000 Pcs
9.0	P7SZ004	300 Pcs	1500 Pcs







TOLERANCE UNSPECIFIED	HONGKE SCIENCE TECHNOLOGY CO.,LTD.				
.XX ± .X ±2.0 . ±5.0 ANGLE ±	NAME	TAPE PACKING DARWING of Mini Card Socket & Holder			
DRAWN		SCALE 5 : 1	UNIT mm	SHEET 1/1	REV 1.1
CHECKED	"RoHS Compliance"				
APPROVED	DRAWING NO.	RDD-SZ-900			

HK

Document Name:	Production Name:	Document No:
Specification	Mini PCI Express Card Socket	Page: 1 of 4
		Rev.: A/0

1. Scope

This specification covers the material and performance requirements for the Mini PCI Express Card Socket series.

2. Applicable documents

In the event of conflict between requirements of this specification and product drawing, product drawing shall take precedence. In the event of conflict between requirements of this specification and referenced documents, this specification take precedence.

3. Requirements

3.1 Design and Construction

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing.

3.2 Material

Must be compatible with lead-free soldering process

A. Connector

Housing: High Temperature Thermoplastic UL94-V0;
Contact: Copper Alloy, Gold plated, all over Nickel;
Solder: Steel Alloy, Sn plated;

B. Holder

Bracket: High Temperature Thermoplastic UL94-V0;
Fastener: High Temperature Thermoplastic UL94-V0;
Solder: Steel Alloy, Sn plated;

3.3 Ratings

Voltage Rating: 50V AC;
Current Rating: 0.5 A
Operating Temperature: -40°C ~ +80°C.

4. Test requirement and procedures summary

4.1 Examination of product

Test	Requirements	Test Procedure
Examination of product	Meets requirements of applicable product drawing and specification	Visual, dimensional and functional per applicable quality inspection plan

4.2 Electrical Performance requirements

Test	Requirements	Test Procedure
Contact Resistance (low level)	55 mΩ Max (initial) 20 mΩ Max change allowed final	Mated contacts assembled in housing; 20mV Max, 100mA max. (EIA-364-23)
Insulation Resistance	500 MΩ (Min), 500V DC	Impress Voltage 500V DC. Test between adjacent circuits of unmated connectors. (EIA-364-21)

HK

Document Name: Specification	Production Name: Mini PCI Express Card Socket	Document No: Page: 2 of 4 Rev.: A/0

Test	Requirements	Test Procedure
Dielectric withstanding Voltage	300V AC RMS (min) at sea level No discharge, flashover or breakdown.	300V AC for 1 min. Test between adjacent circuits of unmated connectors. (EIA-364-20)
Current Rating	0.5A/power contact (continuous) The temperature rise above ambient shall not exceed 30 , The ambient condition is still air at 25 .	EIA-364-70 method 2

4.3 Mechanical performance requirements

Test	Requirements	Test Procedure
Total mating force	2.3 kgf Max. 1. Insert the card at 30° 2. Rotate the card into position	Operation speed: 100mm/min. Measure the force required to mate connector. (EIA-364-13)
Total unmating force	2.3kgf Max. Reverse the installation sequence to unmating	Operation speed: 100mm/min. Measure the force required to unmate connector (EIA-364-13)
Durability	Contact Resistance 20 mΩ Max change allowed final	Mating/unmating 50 cycles (EIA-364-09)
Physical Shock	No electrical discontinuity of 0.1 μsec. or longer duration.	Accelerated Velocity: 50G Wave form: Half sin, Duration: 11msec. Number of Drops: 6 drops each to normal and reversed directions of X, Y and Z axes, totally 18 drops. (EIA-364-27)
Vibration	No electrical discontinuity of 0.1 μsec. or longer duration.	Amplitude: 1.52mm P-P, Sweep time: 10-55-10Hz in 1min. Duration: 2 hours in each of 3 mutually perpendicular planes. 100 mA applied. (EIA-364-28)

4.4 Environmental performance requirements

Test	Requirements	Test Procedure
Thermal Shock	Contact Resistance 20 mΩ Max change allowed	Mated connectors. -55°C & 105°C for 30 minutes/cycle, repeat 5 cycles. (EIA-364-32)
Temperature Life	Contact Resistance 20 mΩ Max change allowed	Mated connector. 85°C Duration: 2days (EIA-364-17)

HK

Document Name: Specification	Production Name: Mini PCI Express Card Socket	Document No:
		Page: 3 of 4
		Rev.: A/0

Test	Requirements	Test Procedure
Salt Spray	20 mΩ Max change allowed final	Subject mated connectors to 5% salt concentration for 24 hours. (EIA-364-26)
Temperature-Humidity Cycle test	20 mΩ Max change allowed final	Mated connector, 25~65°C, 90% ~ 95% R.H. 10 cycles. (EIA-364-31)
Solderability	Wet Solder Coverage: 95%Min.	Solder Temperature: 265±5°C Immersion Duration: 3±0.5 seconds (EIA-364-56)
Mixed flowing gas	5 years	EIA-364-65, class IIA (7days to simulate)
Resistance to Reflow Soldering Heat	No physical damage shall occur	Test connector on PCB Pre-Heat 100~150°C: 60sec.Max. Heat 220°C Min.: 30sec.Max Heat Peak 265°C Max. See figure-1 (EIA-364-56)

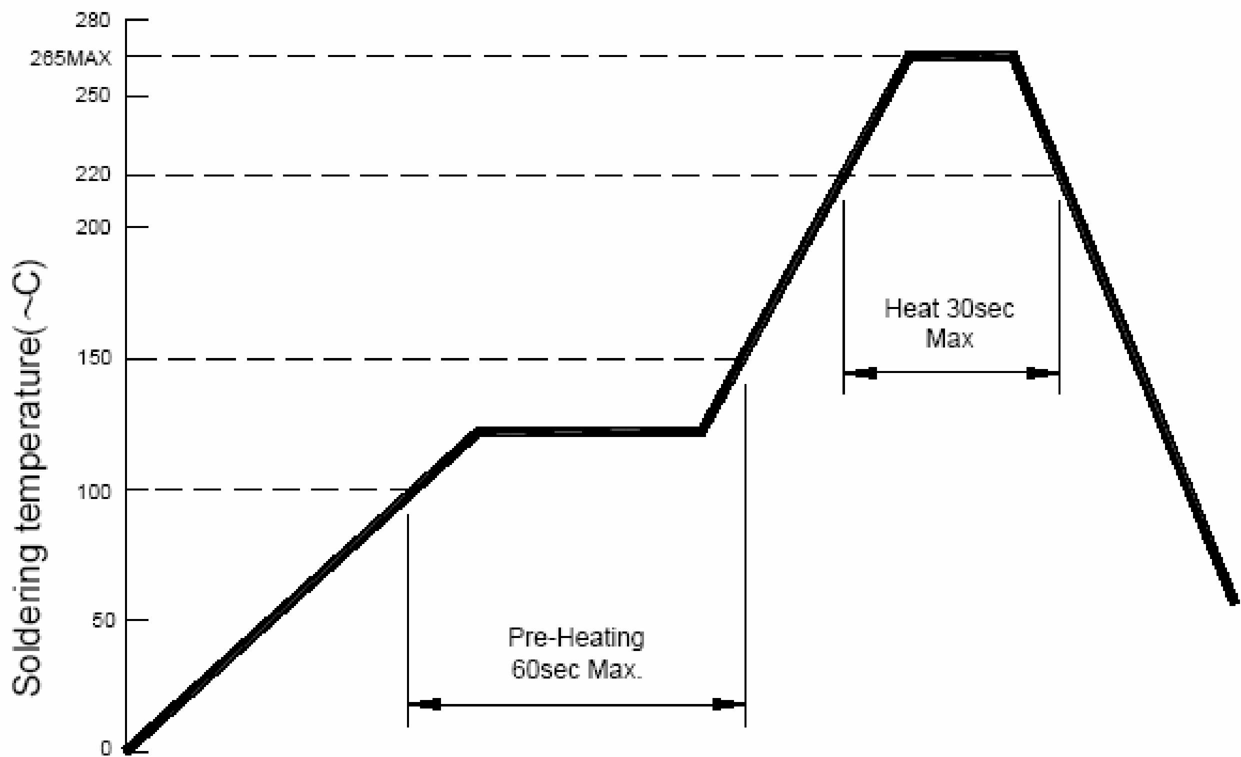


Figure-1

4.5 Product qualification and requalification test

Test or Examination	Test Group						
	1	2	3	4	5	6	7
Examination of product	1,9	1,6	1,5	1,5	1,5	1,5	1,10
Contact Resistance (low level)	3,7	2,4	2,4	2,4	2,4	2,4	2,9
Insulation Resistance							3,7
Dielectric withstanding Voltage							4,8
Current Rating							6
Total mating force	2						
Total unmating force	8						
Durability	4						
Physical Shock	6						
Vibration	5						
Thermal Shock		5					
Temperature Life (Heat Aging)			3				
Salt Spray					3		
Temperature-Humidity Cycle test		3					
Solderability						3	
Mixed flowing gas				3			
Resistance to Reflow Soldering Heat							5

Note: Test 5pcs samples/test group