

Supplier: 3M TECHNOLOGIES (S) PTE LTD
 Vendor Part No: 3M100701
 Package Description: Carrier Tape
 Package Designator: ADP199
 Result: PASS
 Date: April 10, 2012

I. Manufacturability Test

1. Material on evaluation will not pose any problem with the existing machine.

- a). Tape feeds freely in machine (no jams).
- b). No component pick and place issues.
- c). Spring UPH = 2200
- d). Units do not slide out pocket or occurrence of tombstone
- e). Part counting check - OK

Result : PASS (Pass/Fail)

2. Peel Force

Parameter Setting (new material) POS Result

Temperature :	<u>180</u>	min :	<u>40.0</u>
Seal delay :	<u>-</u>	max :	<u>58.9</u>
Pressure :	<u>2.5bar</u>	avg. :	<u>62.85</u>

Cover tape Supplier & Part No: 3M TECHNOLOGIES (S) PTE LTD / R021-0537X (5.4 mm width)

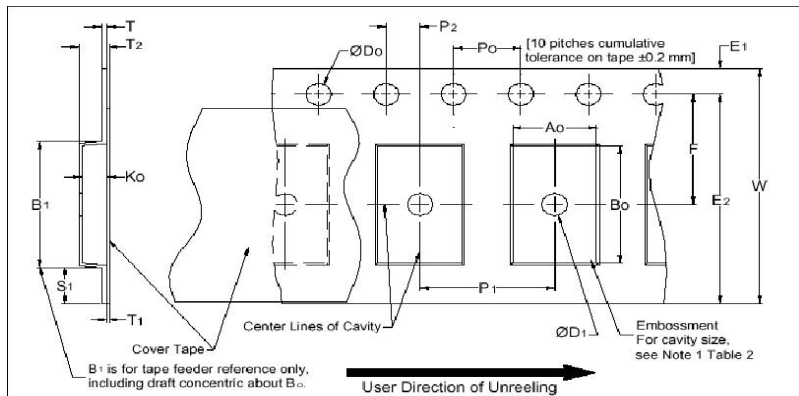
M/C no. used : GPD Peel Backforce tester

Result : PASS (Pass/Fail)

II. Dimensional Check

Parameters	Nominal Size	Tolerance		Sample Size												Results		Result
		Lower	Upper	1	2	3	4	5	6	7	8	9	10	11	12	MIN	MAX	
Ao	0.85	0.82	0.88	0.851	0.842	0.846	0.849	0.857	0.845	0.860	0.839	0.850	0.848	0.840	0.856	0.839	0.860	Good
Bo	0.85	0.82	0.88	0.861	0.855	0.857	0.863	0.860	0.855	0.855	0.850	0.855	0.860	0.865	0.859	0.850	0.865	Good
Ko	0.60	0.57	0.63	0.580	0.591	0.578	0.588	0.578	0.592	0.589	0.589	0.577	0.590	0.578	0.588	0.577	0.592	Good

Result : PASS (Pass/Fail)



Representative Carrier Tape Picture (Not actual qualification material)

III. Fit Analysis

Result : PASS (Pass/Fail)

IV. Drop Test

Result : PASS (Pass/Fail)

V. Shake Test

Result : PASS (Pass/Fail)

VI. Supplier Drawing

Design per EIA-481: YES (Yes/No)

Evaluation performed by: Michael Foo

Approved and reviewed by: Winnie Cheong