

JEDEC  
SOLID STATE  
PRODUCT OUTLINE

THIS **REGISTERED OUTLINE** HAS BEEN PREPARED BY THE JEDEC JC-11 COMMITTEE AND REFLECTS A PRODUCT WITH ANTICIPATED USAGE IN THE ELECTRONICS INDUSTRY; CHANGES ARE LIKELY TO OCCUR.

TITLE 13 Pin Reduced Size MultiMediaCard  
(MMC) Outline-MMCmobile  
18 X 24 X 1.4mm

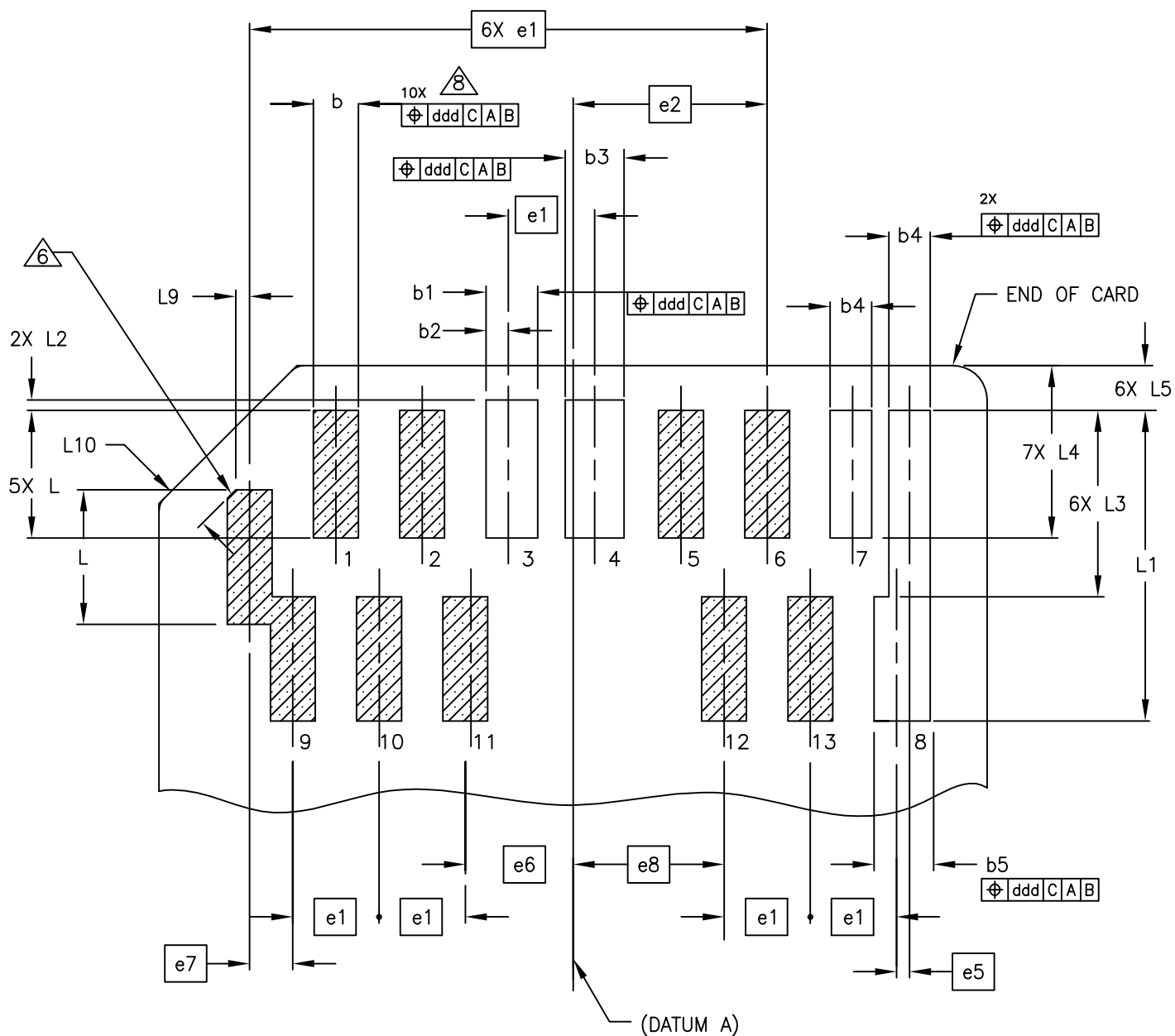
PACKAGE DESIGNATOR  
RL-PLGA/MMCmobile

ISSUE  
A

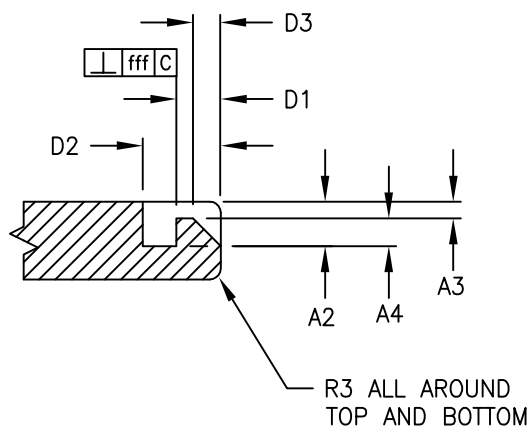
DATE  
SEP.  
2006

MO-278

SHEET  
1 OF 6



DETAIL B



SECTION A-A

NOTE: SECTION A-A HAS BEEN ROTATED 90 DEGREES  
COUNTER CLOCKWISE FOR CLARITY

TABLE 1

COMMON DIMENSIONS				
SYMBOL	MINIMUM	NORMINAL	MAXIMUM	NOTE
A	1.30	1.40	1.50	
A1	0.70	0.75	0.85	
A2	0.75	0.80	0.85	
A3	0.25	0.30	0.35	
A4	0.45	0.50	0.55	
A5	0.25	0.30	0.35	
A6	0.70	0.75	0.80	
b	1.05	1.30	1.55	
b1	1.25	1.50	1.75	
b2	0.525	0.65	0.775	
b3	1.45	1.70	1.95	
b4	0.95	1.20	1.45	
b5	1.375	1.625	1.875	
<u>D</u>	18.00 BSC			
D1	0.75	0.80	0.85	
D2	1.30	1.40	1.50	
D3	0.45	0.50	0.55	
D4	4.90	5.00	5.10	
D5	6.40	6.50	6.60	4
D6	9.90	10.00	10.10	
D7	11.40	11.50	11.60	4
D8	1.90	2.00	2.10	7
<u>E</u>	24.00 BSC			
E1	0.50	0.55	0.65	
E2	---	---	21.675	
E3	1.95	---	---	
E4	15.80 BSC			7
E5	8.90	9.00	9.10	7
E6	17.80 BSC			7
E7	23.30 BSC			7
<u>e1</u>	2.50 BSC			
<u>e2</u>	5.625 BSC			
<u>e3</u>	8.05 BSC			
<u>e4</u>	9.75 BSC			
<u>e5</u>	0.375 BSC			
<u>e6</u>	3.125 BSC			
<u>e7</u>	1.25 BSC			
<u>e8</u>	4.375 BSC			
H	3.90	4.00	4.10	5
H1	3.90	4.00	4.10	5
L	3.60	3.70	3.80	
L1	8.90	9.00	9.10	
L2	0.20	0.30	0.40	
L3	5.30	5.40	5.50	
L4	5.00	---	---	
L5	---	---	1.60	
L6	7.50	---	---	
L7	---	---	4.00	
L8	2.20	2.30	2.40	
L9	0.25	---	---	6
L10	---	---	1.30	6
N	13			3
R1	0.45	0.50	0.55	
R2	0.95	1.00	1.05	
R3	0.20	---	---	
R4	---	---	0.35	4
R5	0.45	0.50	0.55	
R6	0.20	0.25	0.30	
R7	---	---	0.25	4
NOTES	1,2			
REF	11.14-092			
ISSUE	A			

TABLE 2

TOLERANCE OF FORM & POSITION	
SYMBOL	
aaa	0.10
bbb	0.08
ccc	0.15
ddd	0.05
eee	0.05
fff	0.06
NOTES	1,2
REF	11.14-092
ISSUE	A

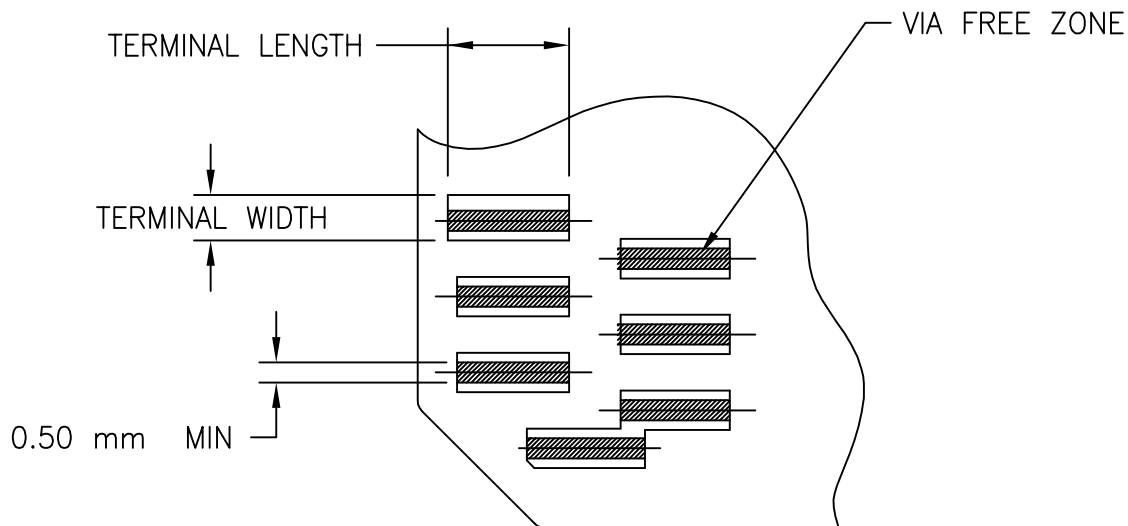
## NOTES:

1. DIMENSIONS AND TOLERANCING CONFORM TO ASME Y14.5M-1994
2. ALL DIMENSIONS IN MILLIMETERS.
3. N IS THE NUMBER OF TERMINALS.
4. THE RETENTION NOTCH AREAS ARE FOR MECHANICAL LOCKING OF THE CARD.
5. CHAMFER IS A MECHANICAL KEY FEATURE.
6. CHAMFERED TERMINAL END IS TO ALLOW A NON CONDUCTIVE ZONE BETWEEN THE TERMINAL AND LID.
7. FEATURES ARE PRESENT TO ALLOW AN EXTENSION CARD IF DESIRED TO BE ATTACHED TO MAKE THE TOTAL CARD LENGTH COMPATIBLE WITH THE 13 PIN FULL SIZE MULTIMEDIA CARD.
8. CROSS SECTIONED TERMINALS IN DETAIL B ARE TO SHOW THE LEADS THAT HAVE b TERMINAL WIDTH.

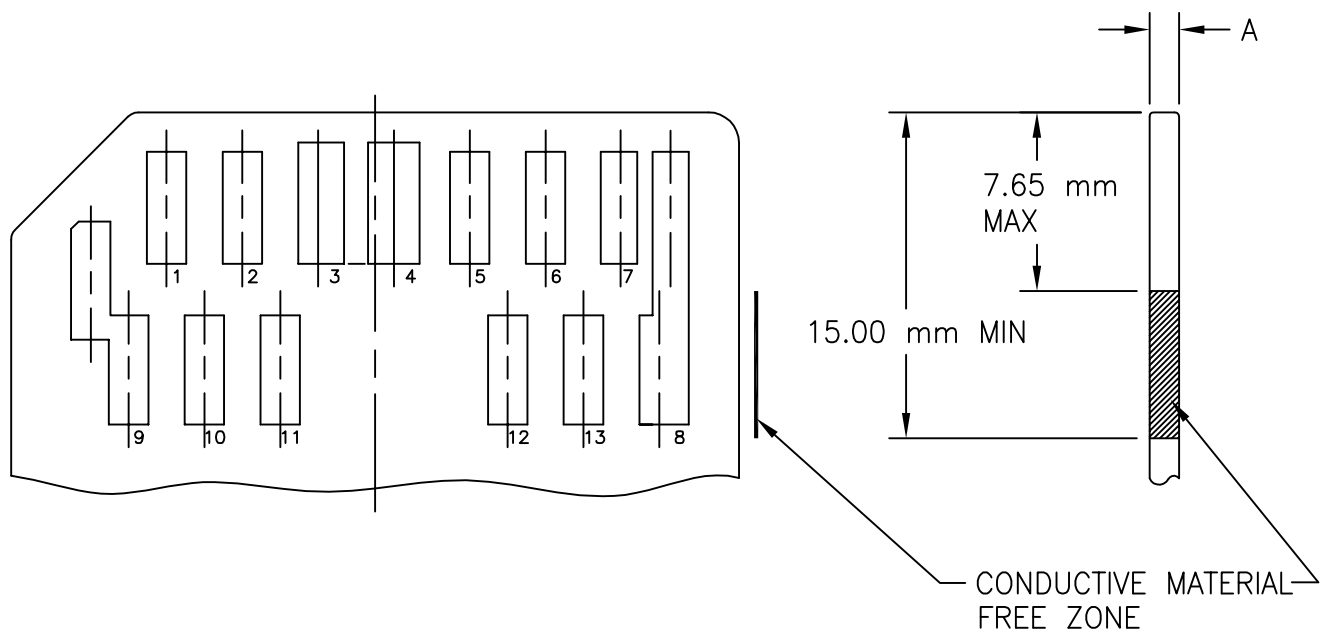
## APPLICATION NOTES:

9. PREFERABLE PLATING, ELECTROLYTIC (HARD) GOLD PLATING 0.50 MICROMETERS MINIMUM OVER ELECTROLYTIC NICKEL 2.00 MICROMETERS MINIMUM.

10. WHEN THE CARD IS CONSTRUCTED WITH VIAS IN THE TERMINALS, A VIA FREE KEEP OUT ZONE OF 0.50 mm MINIMUM WIDE (IN THE CENTER OF EACH TERMINAL) AND ALONG THE ENTIRE TERMINAL LENGTH MUST BE OBSERVED (SEE NOTE FIGURE).



11. WHEN THE CARD IS CONSTRUCTED WITH CONDUCTIVE MATERIAL ON THE EXTERNAL CARD SURFACE EDGE, A KEEP OUT ZONE ADJACENT TO TERMINAL 8 MUST BE FREE OF ANY CONDUCTIVE MATERIAL. THE ZONE IS DEFINE 7.65 mm MAXIMUM AND 15.00 mm MINIMUM FROM THE NOTCHED END OF THE CARD APPLIES TO THE ENTIRE THICKNESS "A" OF THE CARD (SEE NOTE FIGURE)



## Change Record

If the change involves any words added or deleted (excluding deletion of accidentally repeated words), the change is included. Punctuation changes may or may not be included

Initial Issue:	Date:	Item
A	SEP. 2006	11.14-092

Revision History
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Issue:	Date:	Item
Location:	Changed From:	Changed to:

Issue:	Date:	Item
Location:	Changed From:	Changed to: