



*Image may not represent actual product

General Specifications

Part Number	S2-MSDHU1-16G-B	ECC	Uncontrolled
Form Factor	Micro SD 6.0	Voltage	3.3V
Capacity	16GB	Min. Read Speed	90MB/s*
Min. Bytes	15,461,882,265 bytes	Min. Write Speed	10MB/s*
Default Format	FAT 32	Class	UHS-I / A1 / U1 / Class 10
Pin Count	8pin	Warranty	1 Year
CPRM	V		

NAND Specifications

NAND Manufacturer	NOT CONTROLLED	NAND Config	NOT CONTROLLED
NAND Part Number	NOT CONTROLLED	NAND Quantity	NOT CONTROLLED
NAND Type	NOT CONTROLLED	NAND Package	NOT CONTROLLED
NAND Geometry	NOT CONTROLLED	NAND Technology	NOT CONTROLLED

Controller Specifications

Controller	AM2703	Static Wear Level	Enabled
Controller Mfg.	Asolid	Dynamic Wear Level	Enabled

Environment

Operating Temp	Extended (-25 to 85 C)	Storage Temp	Storage (-40 to +85 C)
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*Speed tests conducted using TestMetrix 3300 Series Flash Tester.

Pin Out Diagram

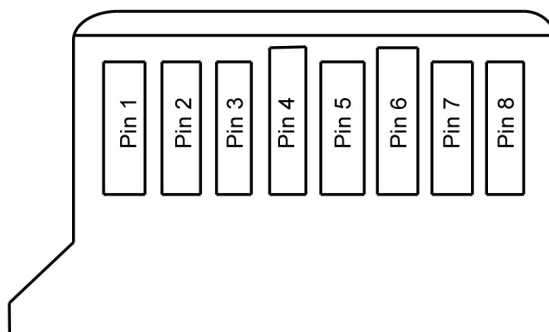


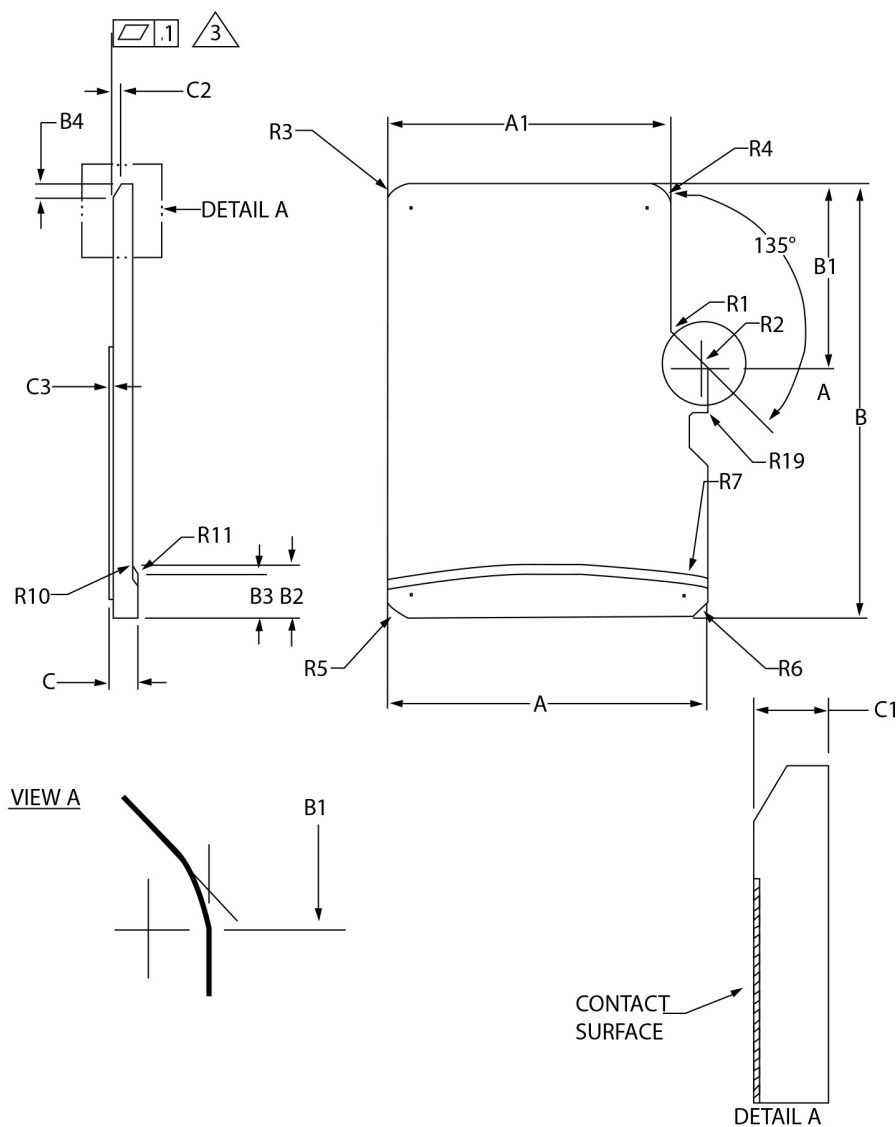
Figure 1: Contact Area

Pin#	SD Mode			SPI Mode		
	Name	Type ¹	Description	Name	Type	Description
1	DAT2	I/O/PP	Data Line [Bit 2]	RSV		
2	CD/DAT3 ²	I/O/PP ^T	Card Detect / Data Line [Bit 3]	CS	I	Chip Select (neg true)
3	CMD	PP	Command/Response	DI	I	Data In
4	V _{DD}	S	Supply voltage	V _{DD}	S	Supply voltage
5	CLK	I	Clock	SCLK	I	Clock
6	V _{SS}	S	Supply voltage ground	V _{SS}	S	Supply voltage ground
7	DAT0	I/O/PP	Data Line [Bit 0]	DO	O/PP	Data Out
8	DAT1	I/O/PP	Data Line [Bit 1]	RSV		
-				-		
-				-		
-				-		
-				-		

Table 1: Micro-Sized SD Contact Pad Assignment

- 1) S: Power supply; I: Input; O: output using push-pull drivers; PP: I/O using push pull drivers;
- 2) The extended DAI lines (DAT1-DAT3) are input on power up. They start to operate as DAT lines after SET_BUS_WIDTH command. The host shall keep its own DAT-1-DAT3 lines in input mode, as well, while they are not used. It is defined so, in order to keep compatibility to MultiMediaCards.
- 3) After power up this line is input with 50KOhm pull-up (can be used for card detection or SPI mode selection). The pull-up should be disconnected by the user, during regular data transfer, with SET_CLR_CARD_DETECT (ACMD42) command.

Physical Dimensions



SYMBOL	COMMON DIMENSIONS			NOTE
	MIN	NOM	MAX	
A	10.90	11.00	11.10	
A1	9.60	9.70	9.80	
A2		3.85		BASIC
A3	7.60	7.70	7.80	
A4		1.10		BASIC
A5	0.75	0.80	0.85	
A6			8.50	
A7	0.90			
A8	0.60	0.70	0.80	
A9	0.80			
B	14.90	15.00	15.10	
B1	6.30	6.40	6.50	
B2	1.64	1.84	2.04	
B3	1.30	1.50	1.70	
B4	0.42	0.52	0.62	
B5	2.80	2.90	3.00	
B6	5.50			
B7	0.20	0.30	0.40	
B8	1.00	1.10	1.20	
B9	-	-	9.00	
B10	7.80	7.90	8.00	
B11	1.10	1.20	1.30	
C	0.90	1.00	1.10	
C1	0.60	0.70	0.80	
C2	0.20	0.30	0.40	
C3	0.00		0.15	
D1	1.00			
D2	1.00			
D3	1.00			
R1	0.20	0.40	0.60	
R2	0.20	0.40	0.60	
R3	0.70	0.80	0.90	
R4	0.70	0.80	0.90	
R5	0.70	0.80	0.90	
R6	0.70	0.80	0.90	
R7	29.50	30.00	30.50	
R10		0.20		
R11		0.20		
R17	0.10	0.20	0.30	
R18	0.20	0.40	0.60	
R19	0.05		0.20	

Functional Diagram

