



RS-MMC Secure Digital card

specification



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Description

The product is data storage Reduce Size MultiMedia Card. WOK Reduce Size MultiMedia card is a high performance small storage device. With adapting FastMDC™ technology and Embedded ECC function, WOK Reduce Size MultiMedia card could provide a cost-effective solution with ultra high performance of flash access time and high reliability of data storage. Via a dedicated serial interface optimized for fast and reliable data transmission, WOK can provide an inexpensive, mechanically robust storage medium in card form for multimedia consumer applications and mobile devices (handheld PCs, digital cameras, MP3 player, and mobile phones, etc.) to store, copy, and move information like a small hard drive. The WOK Reduce Size MultiMedia Card meets MMCA Specification Version 3.1.

This document gives a general overview of the Reduce Size MultiMediaCard system architecture. A detailed description can be found in “Reduce Size MultiMedia Card System Specification Version2.11”, Official Release June 2002.

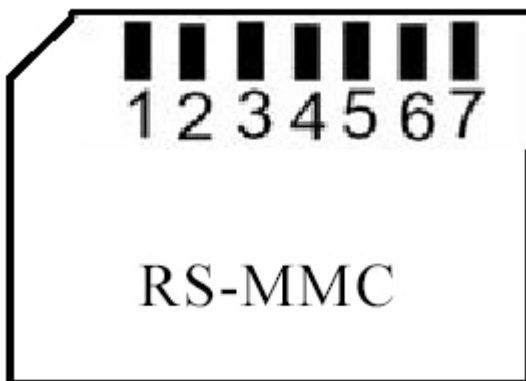
Feature

- Storage Capacity:128MB~256MB
- Fully compatible with Multi-Media Card spec. V3.1
- Support FastMDC™ technology
- Embedded ECC function
- Support automatic power down and automatic wake up
- Lower power dissipation.
- Operating Temperature: -25 °C to 80 °C
- Durability: > 1,000,000 hours
- Form Factor: 32mm x 18mm x 1.4mm

MMC Product List

Capacity	Order Part Number
128MB	DTTRSMMC128
256MB	DTTRSMMC256
512MB	DTTRSMMC512
1GB	DTTRSMMC1GB
2GB	DTTRSMMC2GB

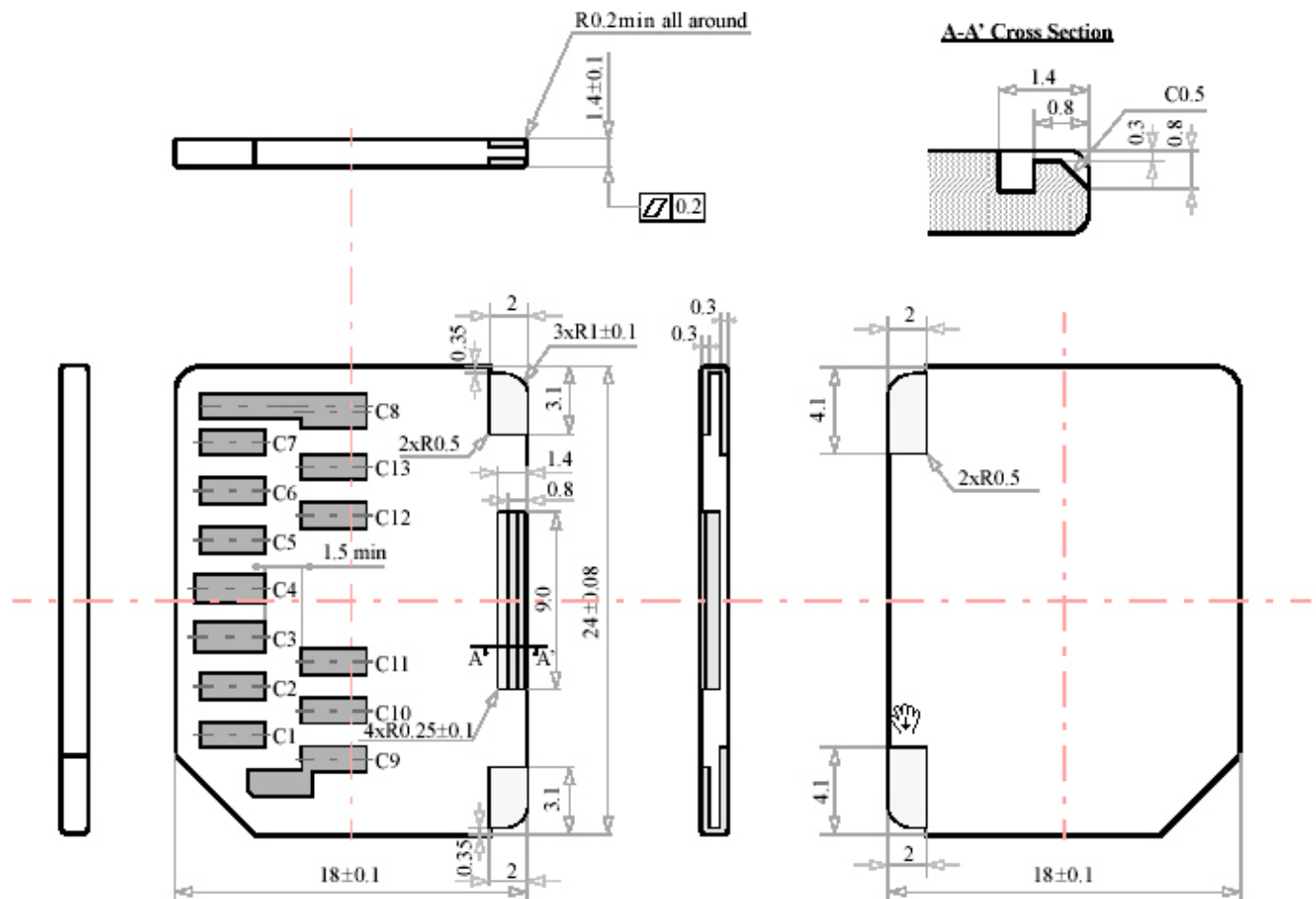
Pin Description



Pin No.	Name	Type	Description
1	RSV	NC	No connection
2	CMD	In/Out: OD/PP	Command/Response
3	VSS1	Power Supply	Ground
4	VDD	Power Supply	Power Supply
5	CLK	Input	Clock
6	VSS2	Power Supply	Ground
7	DAT [0]	In/Out: PP	Data

Physical Outline:

Dimensions Card Package	24mmX18mm; (min.23.9mmX17.9mm; max.24.1mmX18.1mm)
Thickness	1.4mm ± 0.1mm
Label or printable area	Whole card except contact area
Surface	Plain (except contact area)
Edges	Smooth edges



Electrical Specification :

Recommended Operating Conditions

Parameter	Symbol	Conditions	Min	Max	Unit
Supply voltage	V _{DD}		2.0	3.6	V
Supply voltage differentials	V _{SS}		-0.5	0.5	V
DC input voltage range	V _I		0	V _{DD} +0.3	V
DC output voltage range	V _O		0	V _{DD}	V
Operating temperature range	T _{OPR}		-10	80	C

DC Characteristics

(Recommended operating conditions, All typical values are at V_{DD}=3.3v, V_{SS}=0v.)

Parameter	Symbol	Test Conditions	Min	Typ e	Max	Unit
High level input voltage	V _{IH}	-	0.7*V _{DD}	2	V _{DD} +0.33	V
Low level input voltage	V _{IL}	-	V _{SS} -0.33	0.8	0.3*V _{DD}	V
High level output voltage	V _{OH}	I _O =-100 μA	0.73*V _{DD}	2.4	-	V
Low level output voltage	V _{OL}	I _O =100 μA	-	0.4	0.12*V _{DD}	V
High level open-drain output voltage at MMC interface	V _{OH-OD}	I _O =-100 μA	V _{DD} -0.2	-	-	V
Low level open-drain output voltage at MMC interface	V _{OL-OD}	I _O =2mA	-	-	0.3	V
Input leakage current	I _{LI}	V _I =0 to 3.6V	-	-	±10	μA
Output leakage current	I _{LO}	V _O =0 to 3.6V	-	-	±10	μA
Operating current	I _{CC}	I _O =0mA	-	75	80	μA
Stand-by current	I _{SB}	Test mode = 0	-	75	-	μA

AC Characteristics

Parameter	Symbol	Min	Type	Max	Unit
Input setup time at MMC interface	t _{IS}	3			ns
Input hold time at MMC interface	t _{IH}	3			ns
Output access time at MMC interface	t _{OA}	5			ns
Output hold time at MMC interface	t _{OH}	5			ns



Clock frequency at data transfer mode with 10 cards	t _{10c}		TBD		MHz
Clock frequency at data transfer mode with 30 cards	t _{1s}		TBD		MHz