Card Bus Controller for Notebook Computers and PDAs.

BU6836

The BU6836 is a 1-chip card bus controller designed for notebook computers and PDAs (personal digital assistants). The BU6836 supports two types of CardBus slots : 32-bit CardBus cards and 16-bit PC cards (PCMCIA). Because it can operate at 3.3V, the BU6836 reduces power consumption and prolongs battery life.

●Applications

Notebook computers and PDAs

●Features

1) 2 internal interface slots for PCMCIA 2.1/JEIDA 4.2 R2 cards and CardBus cards.
2) 3 types of ZV port interface (including the 2 card slots), and an internal multiplexer that outputs to a dedicated ZV port.
3) Supports Intel 82365SL PC ICs.
4) Internal 3V card protection system.
5) Supports DMA.
6) BGA256/UQFP256 packages.

●Absolute maximum ratings (Ta=25℃)

Parameter	Symbol	Limits	Unit
Power supply voltage	V_{CC}	−0.5~7	V
Operating temperature range	Topr	0~70	℃
Storage temperature range	Tstg	−55~125	℃

●Recommended operating conditions (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	$V_{CC\ (core)}$	3.0	3.3	3.6	V
	$V_{DDA\ (SKTA)}$	3.0	3.3	5.5	V
	$V_{DDB\ (SKTB)}$	3.0	3.3	5.5	V
	$V_{DDP\ (PCI)}$	3.0	5.0	5.5	V
	$V_{DDZ\ (ZV)}$	3.0	5.0	5.5	V

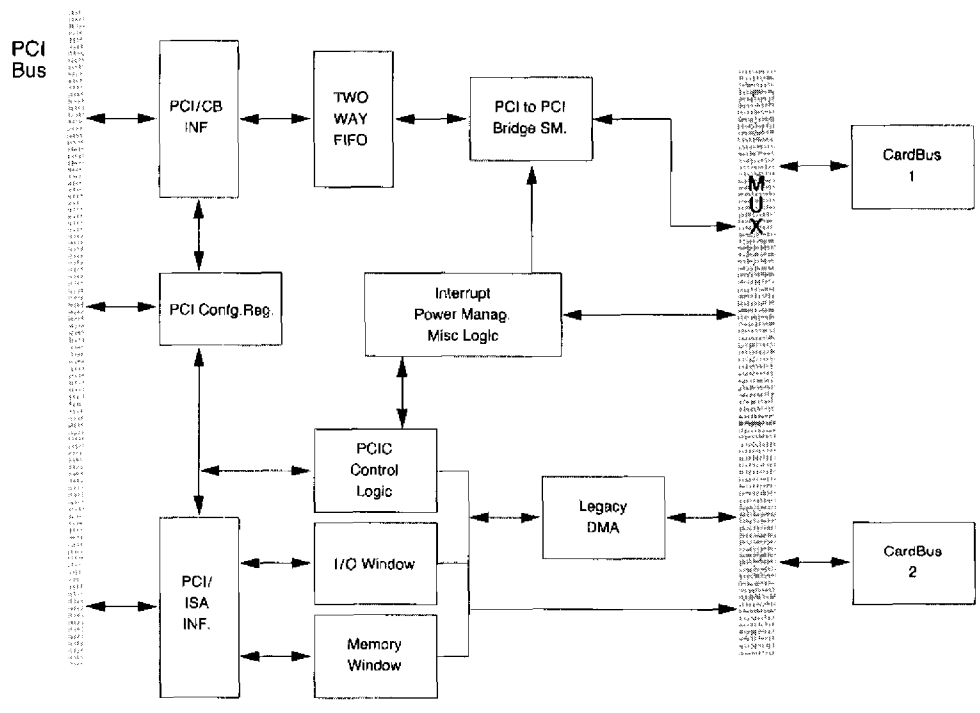
●Electrical characteristics (unless otherwise noted, Ta=25℃, V_{CC}=3.3V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Power supply voltage	$V_{CC\ (core)}$	3.0	3.3	3.6	V	Power supply for the internal core logic
Current consumption	I_{CC3}	—	—	10	mA	

(Unless otherwise noted, Ta=25℃, V_{DDA}, V_{DDB}, V_{DDP}, V_{DDZ}=5.0V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Power supply voltage	V_{DDA}	3.0	5.0	5.5	V	Power supply for SOCKET_A
Power supply voltage	V_{DDB}	3.0	5.0	5.5	V	Power supply for SOCKET_B
Power supply voltage	V_{DDP}	3.0	5.0	5.5	V	PCI power supply
Power supply voltage	V_{DDZ}	3.0	5.0	5.5	V	Power supply for zoomed video
Input leak current	I_{IL5}	−10	—	+10	μA	
Output leak current	I_{OL5}	−10	—	+10	μA	

●Block diagram



●Application circuit

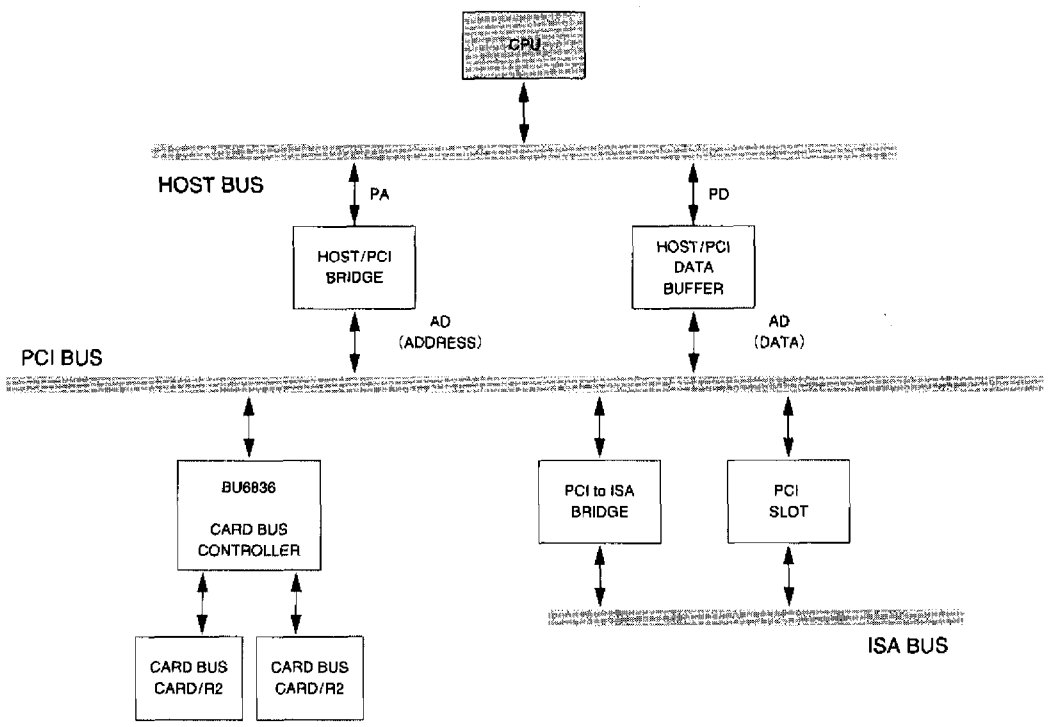
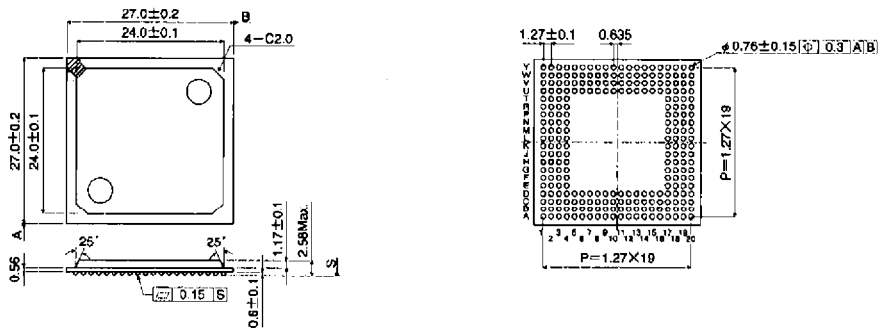
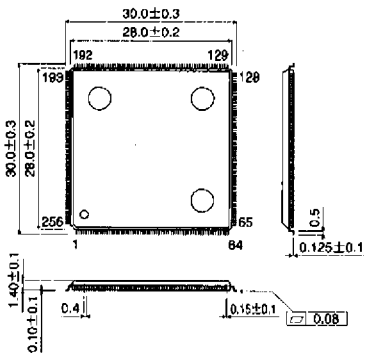


Fig.1

●External dimensions (Units: mm)



PBGA256



UQFP256

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