Latch Read		Write	Increment/Decrement		
pMIR (4)	PhaseA	PhaseB			
MIR (4)	PhaseA PhaseB	PhaseA			
R	PhaseA	PhaseB			
RH	PhaseA	PhaseB			
U-Bypass	PhaseA	PhaseB			
U	PhaseA	PhaseA (5)			
Q	PhaseA	PhaseB			
ibPtr	PhaseA	PhaseB			
ibRdPtr	PhaseB		PhaseA		
LatchibRdPtr	PhaseA	PhaseB			
ibWrtPtr	PhaseB	PhaseA	PhaseA		
saveib	PhaseA	PhaseB (6)			
IB	PhaseA	PhaseB			
Stkp	PhaseA	PhaseB	PhaseB		
RL	PhaseA	PhaseB			
PState	PhaseA	PhaseB			
MDu	PhaseB	RespU' (7)			
MDv	PhaseB	RespV' (7)			
NIA	PhaseA	PhaseB			
CSA	PhaseA PhaseB	PhaseA (8)			
Xh	PhaseA PhaseB	PhaseA			
Yh	PhaseA PhaseB	PhaseA			
cadh	PhaseA	PhaseB			
rah	PhaseB (7)	PhaseA			

Notes: 1. "Read" indicates the times at which the output data should be valid.

- 2. "Write" indicates the times at which the write enable pulse is active.
- "Increment/Decrement" indicates the times at which the register is written with a value derived from its last value.
- 4. "MIR" refers both the the microinstruction register and its decoded outputs. All the decoded outputs become valid at the beginning of PhaseA. "pMIR" is the latch receiving the next microinstruction. MIR _ pMIR in PhaseA.
- 5. Written with contents of U-Bypass reg in first microinstruction following the one writing U-Bypass that does not read the U registers. If a U register is read before it can be updated from U-Bypass, the U-Bypass data is substituted for the U register data.
- 6. When a microinstruction contains an AwIBDisp or an IBDisp that does not cause an IBDispTrap, the IB is read in PhaseA and the saveib is written with that bytecode in PhaseB.
- 7. See Bus Timing diagrams (IBIPSim43-46.sily)
- 8. NIA is the latch in which the address of the second microinstruction following the current one is formed using the branch, dispatch and trap logic. CSA is the latch which holds the address bits actually sent to the Control Store chips. CSA is loaded with NIA in PhaseA.

ľ	XEROX	Project	Reference	File	Designer	Rev	Date	Page
	SDD	Daisy	Latch Timings	IBIPSim63.sily	Garner, Davies	A	10/19/83	63
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