

Figure 2-2 W65C02S Microprocessor Programming Model

Table 3-2 Pin Function Table

Pin	Description
A0-A15	Address Bus
BE	Bus Enable
D0-D7	Data Bus
IRQB	Interrupt Request
MLB	Memory Lock
NC	No Connection
NMIB	Non-Maskable Interrupt
PHI1O	Phase 1 Out Clock
PHI2	Phase 2 In Clock
PHI2O	Phase 2 Out Clock
RDY	Ready
RESB	Reset
RWB	Read/Write
SOB	Set Overflow
SYNC	Synchronize
VDD	Positive Power Supply
VPB	Vector Pull
VSS	Internal Logic Ground

Table 2-1 W65C816S Microprocessor Programming Model

8 Bits	8 Bits	8 Bits
Data Bank Register (DBR)	X Register (XH)	X Register (XL)
Data Bank Register (DBR)	Y Register (YH)	Y Register (YL)
00	Stack Register (SH)	Stack Register (SL)
	Accumulator (B)	Accumulator (A)
Program Bank Register (PBR)	Program (PCH)	Counter (PCL)
00	Direct Register (DH)	Direct Register (DL)

Shaded Blocks = 6502 registers

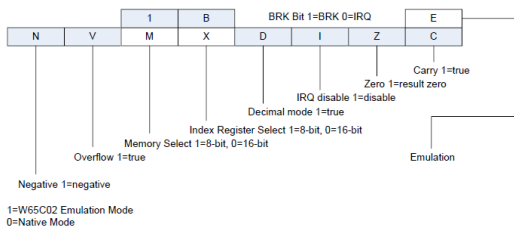
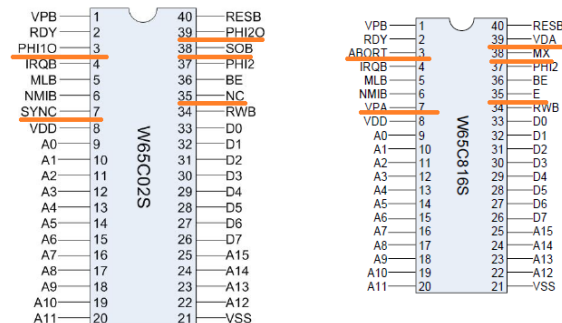


Table 2-2 Pin Function Table

Pin	Description
A0-A15	Address Bus
ABORTB	Abort Input
BE	Bus Enable
PHI2	Phase 2 In Clock
D0-D7	Data Bus/Bank Address Bus
E	Emulation OR Native Mode Select
IRQB	Interrupt Request
MLB	Memory Lock
MX	Memory and Index Register Mode Select
NC	No Connect
NMIB	Non-Maskable Interrupt
RDY	Ready
RESB	Reset
RWB	Read/Write
VDA	Valid Data Address
VPB	Vector Pull
VPA	Valid Program Address
VDD	Positive Power Supply
VSS	Internal Logic Ground



PIN No.	W65C02	W65C816S
3	PHI1O (output)	/ABORT (INPUT)
7	SYNC (OUTPUT)	VPA (OUTPUT)
35	(NC)	E (OUTPUT)
38	/SOB (INPUT)	MX (OUTPUT)
39	PHI2O (OUTPUT)	VDA (OUTPUT)

Table 3-1 Vector Locations

FFFE, F	BRK/IRQB	Software/Hardware
FFFC, D	RESB	Hardware
FFFA, B	NMIB	Hardware

Table 5-2 Emulation Mode Vector Locations (8-bit Mode)

Address	Label	Function
00FFFE, F	IRQB/BRK	Hardware/Software
00FFFC, D	RESETB	Hardware
00FFFA, B	NMIB	Hardware
00FFF8, 9	ABORTB	Hardware
00FFF6, 7	(Reserved)	Hardware
00FFF4, 5	COP	Software
00FFF2, 3	(Reserved)	
00FFF0, 1	(Reserved)	

Table 5-3 Native Mode Vector Locations (16-bit Mode)

Address	Label	Function
00FFFE, F	IRQB	Hardware
00FFEC, D	(Reserved)	
00FFEA, B	NMIB	Hardware
00FFF8, 9	ABORTB	
00FFF6, 7	BRK	Software
00FFE4, 5	COP	Software
00FFE2, 3	(Reserved)	
00FFE0, 1	(Reserved)	

The VP output is low during the two cycles used for vector location access. When an interrupt is executed, D=0 and I=1 in Status Register P.