

Components tests of 6502 CPU

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1 6502 CPU Register Getters and Setters

Register	Getter Function	Validity	Setter Function	Validity
Accumulator (A)	getA()	PASS	setA(value)	PASS
X Index (X)	getX()	PASS	setX(value)	PASS
Y Index (Y)	getY()	PASS	setY(value)	PASS
Stack Pointer (SP)	getSP()	PASS	setSP(value)	PASS
Program Counter (PC)	getPC()	PASS	setPC(value)	PASS
Status (P)	getStatus()	PASS	setStatus(value)	PASS

Table 1: 6502 CPU Register Getter and Setter functions validity

2 6502 CPU Memory reading and writting

Memory Function	Validity
Read 8-bit	PASS
Read 16-bit	PASS
Write 8-bit	PASS
Write 16-bit	PASS

Table 2: 6502 CPU Register Read and Write functions validity

3 6502 CPU Flags getters and setters

Flag	Getter Function	Validity	Setter Function	Validity
Carry (C)	getFlag('C')	PASS	setFlag('C', value)	PASS
Zero (Z)	getFlag('Z')	PASS	setFlag('Z', value)	PASS
Interrupt (I)	getFlag('I')	PASS	setFlag('I', value)	PASS
Decimal (D)	getFlag('D')	PASS	setFlag('D', value)	PASS
Break (B)	getFlag('B')	PASS	setFlag('B', value)	PASS
Overflow (V)	getFlag('V')	PASS	setFlag('V', value)	PASS
Negative (N)	getFlag('N')	PASS	setFlag('N', value)	PASS

Table 3: 6502 CPU Flags Getter and Setter functions validity

4 6502 CPU OPCODEs execution

4.1 LDA instructions :

OPCode	Validity
0xA1	PASS
0xA5	PASS
0xA9	PASS
0xAD	PASS
0xB1	PASS
0xB5	PASS
0xB9	PASS
0xBD	PASS

Table 4: 6502 CPU Register Read and Write functions validity

4.2 LDX instructions :

OPCode	Validity
0xA2	PASS
0xA6	PASS
0xB6	PASS
0xAE	PASS
0xBE	PASS

Table 5: 6502 CPU Register Read and Write functions validity

4.3 LDY instructions :

OPCode	Validity
0xA0	PASS
0xA4	PASS
0xB4	PASS
0xAC	PASS
0xBC	PASS

Table 6: 6502 CPU Register Read and Write functions validity