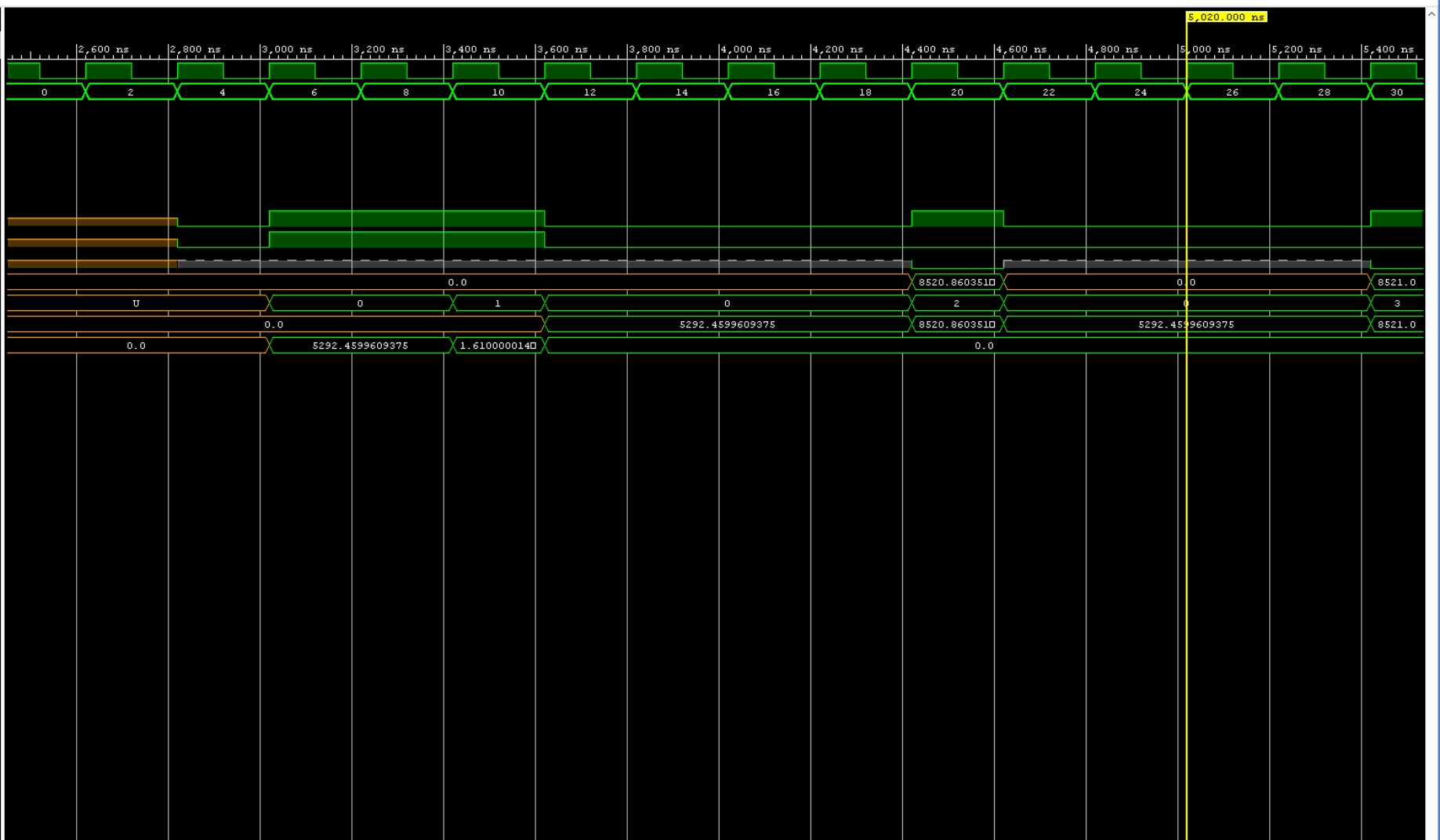


Name	Value
clock	1
ProgramCounter[9:0]	26
Fetch	
Decode	
Execute	
AluOpX[3:0]	0110
RVAX[31:0]	8520.8603515625
AluInBX[31:0]	5292.4599609375
AluResult[31:0]	8521.0
n	0
z	0
e	0
UBX	0
NBX	0
ZBX	0
RWX	1
MWX	0
MTRX	0
RDSX	0
IVAX	0
BDESTX[9:0]	000
RVBX[31:0]	45a563ae
RD[3:0]	3
IVX[31:0]	0.0
Memory	
MemDataOut[31:0]	0.0
MWM	0
RWM	0
MTRM	-
RDSM	0
RVBM[31:0]	5292.4599609375
RDM[3:0]	0
ALURM[31:0]	5292.4599609375
MEMDW[31:0]	0.0
IVM[31:0]	0.0
Write Back	

The timing diagram shows the execution of a program over 5,400 ns. A yellow vertical line marks 5,020.000 ns. The diagram includes a list of signals on the left, a table of their values, and a detailed waveform view on the right. The signals include clock, ProgramCounter, Fetch, Decode, Execute, AluOpX, RVAX, AluInBX, AluResult, n, z, e, UBX, NBX, ZBX, RWX, MWX, MTRX, RDSX, IVAX, BDESTX, RVBX, RD, IVX, Memory, MemDataOut, MWM, RWM, MTRM, RDSM, RVBM, RDM, ALURM, MEMDW, IVM, and Write Back. The values are shown in the table. The waveform view shows the signals over time, with a yellow vertical line at 5,020.000 ns.

Name	Value
clock	1
>  ProgramCounter[9:0]	26
>  Fetch	
>  Decode	
>  Execute	
>  Memory	
>  Write Back	
RWW	0
RDSW	0
IMTRW	-
>  DataToReg[31:0]	0.0
>  RDW[3:0]	0
>  ALURW[31:0]	5292.4599609375
>  IWV[31:0]	0.0



Timing diagram showing various signals over time (ns).

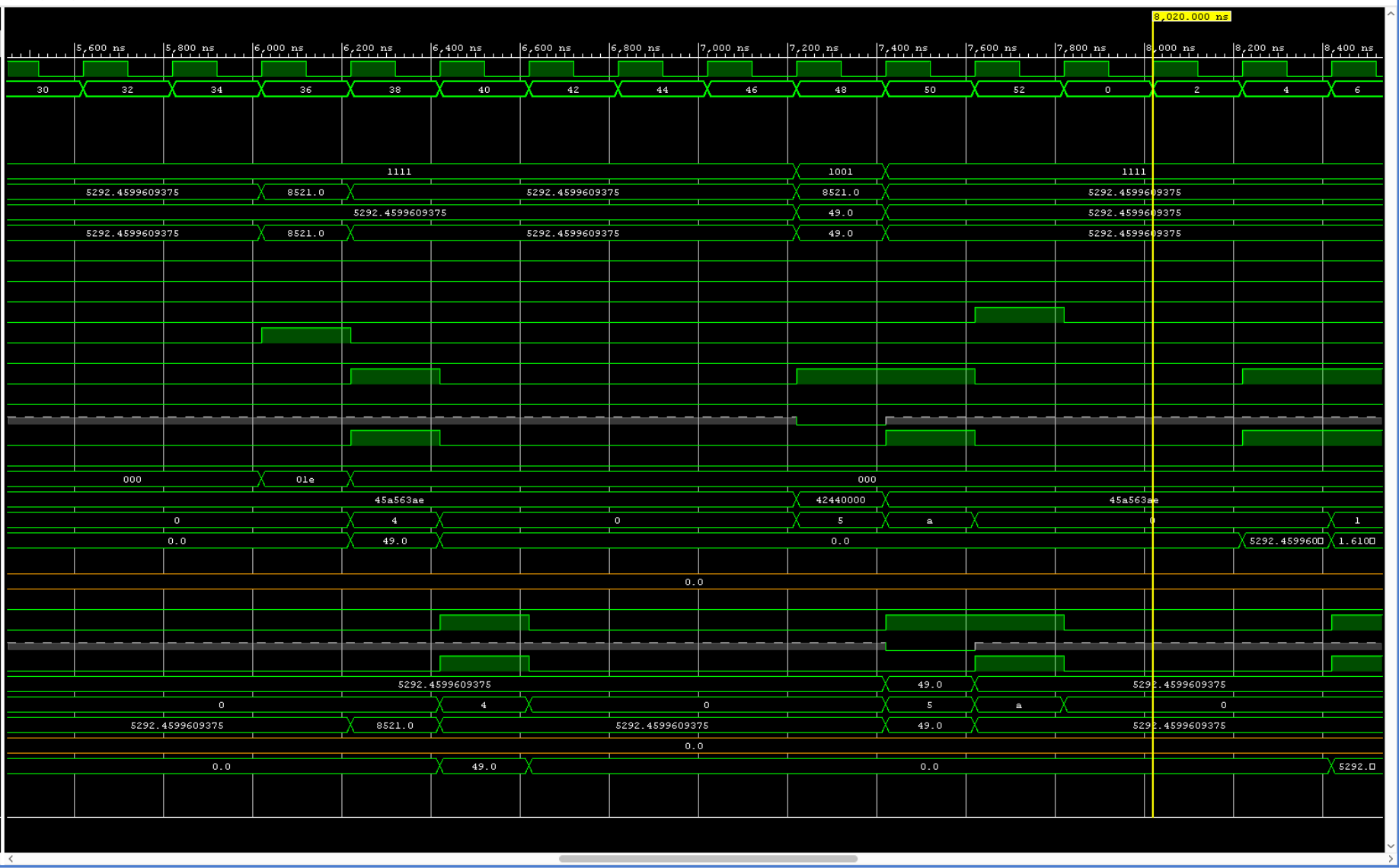
**Legend:**

- clock
- ProgramCounter[9:0]
- Fetch
  - Instruction[31:0]
  - Immediate...Jue[31:0]
- Decode
  - opCode[4:0]
  - R1[3:0]
  - RValueA[31:0]
  - R2[3:0]
  - RValueB[31:0]
  - Rd[3:0]
  - RegWriteData[31:0]
  - BDEST[9:0]
  - IVDecode[31:0]
  - AluInB[31:0]
- Control
  - AluOpCode[3:0]
  - UB
  - NB
  - ZB
  - RW
  - MW
  - MTR
  - RDS
  - IVA
- Execute
- Memory
- Write Back

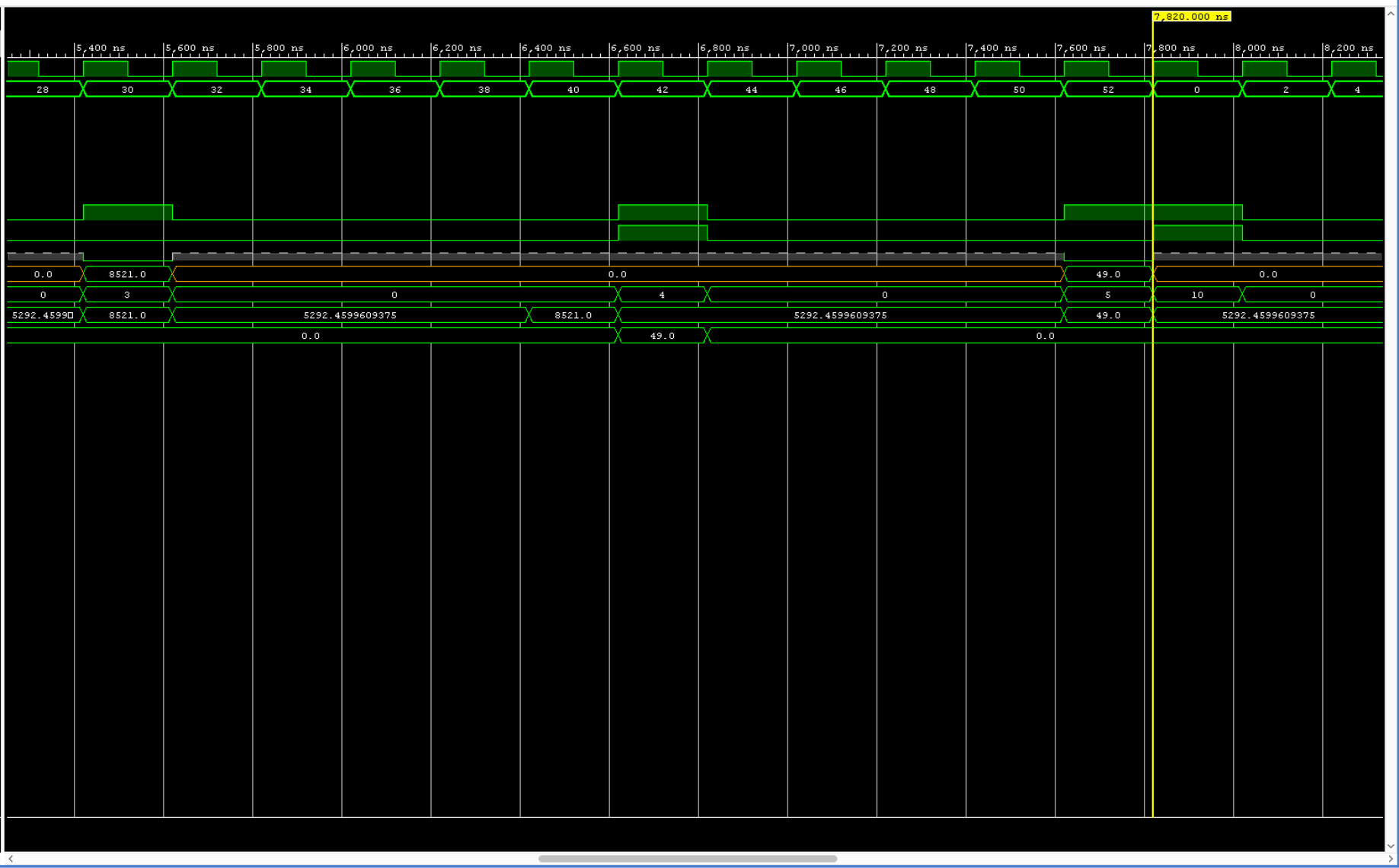
**Timing Diagram Data:**

Signal	Value
clock	0
ProgramCounter[9:0]	0
Instruction[31:0]	80000000
Immediate...Jue[31:0]	5292.4599609375
opCode[4:0]	11111
R1[3:0]	0
RValueA[31:0]	5292.4599609375
R2[3:0]	0
RValueB[31:0]	5292.4599609375
Rd[3:0]	0
RegWriteData[31:0]	0.0
BDEST[9:0]	0
IVDecode[31:0]	0.0
AluInB[31:0]	45a563ae
AluOpCode[3:0]	1111
UB	0
NB	0
ZB	0
RW	0
MW	0
MTR	-
RDS	0
IVA	0

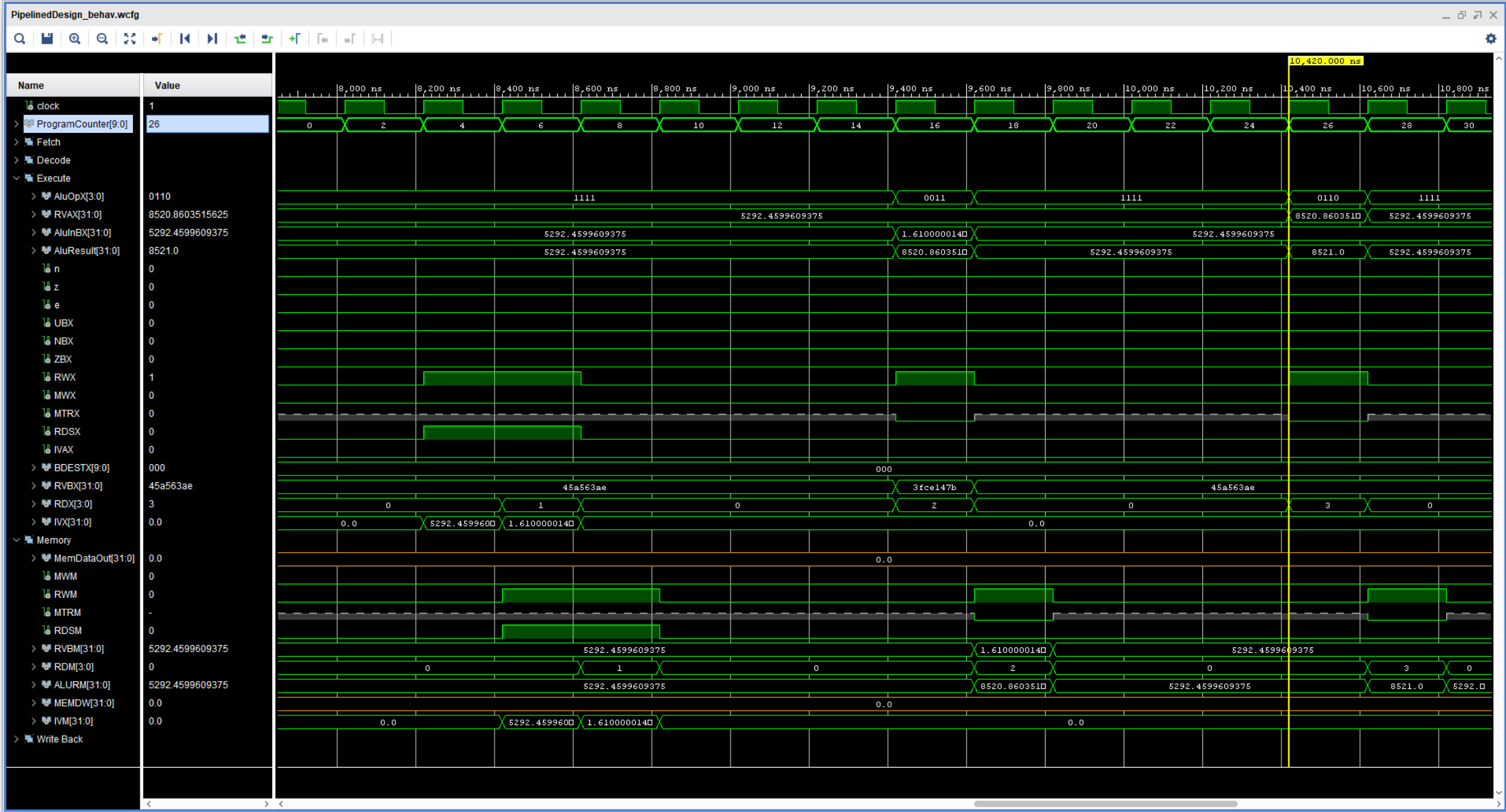
Name	Value
clock	1
>  ProgramCounter[9:0]	2
>  Fetch	
>  Decode	
>  Execute	
>  AluOpX[3:0]	1111
>  RVAX[31:0]	5292.4599609375
>  AluInBX[31:0]	5292.4599609375
>  AluResult[31:0]	5292.4599609375
n	0
z	0
e	0
UBX	0
NBX	0
ZBX	0
RWX	0
MWX	0
MTRX	-
RDSX	0
IVAX	0
>  BDESTX[9:0]	000
>  RVBX[31:0]	45a563ae
>  RDX[3:0]	0
>  IVX[31:0]	0.0
>  Memory	
>  MemDataOut[31:0]	0.0
MWM	0
RWM	0
MTRM	-
RDSM	0
>  RVBM[31:0]	5292.4599609375
>  RDM[3:0]	0
>  ALURM[31:0]	5292.4599609375
>  MEMDW[31:0]	0.0
>  IVM[31:0]	0.0
>  Write Back	

















Name	Value
clock	1
>  ProgramCounter[9:0]	0
>  Fetch	
>  Decode	
>  Execute	
>  Memory	
>  Write Back	
RWW	1
RDSW	1
MTRW	-
>  DataToReg[31:0]	0.0
>  RDW[3:0]	10
>  ALURW[31:0]	5292.4599609375
>  IWV[31:0]	0.0

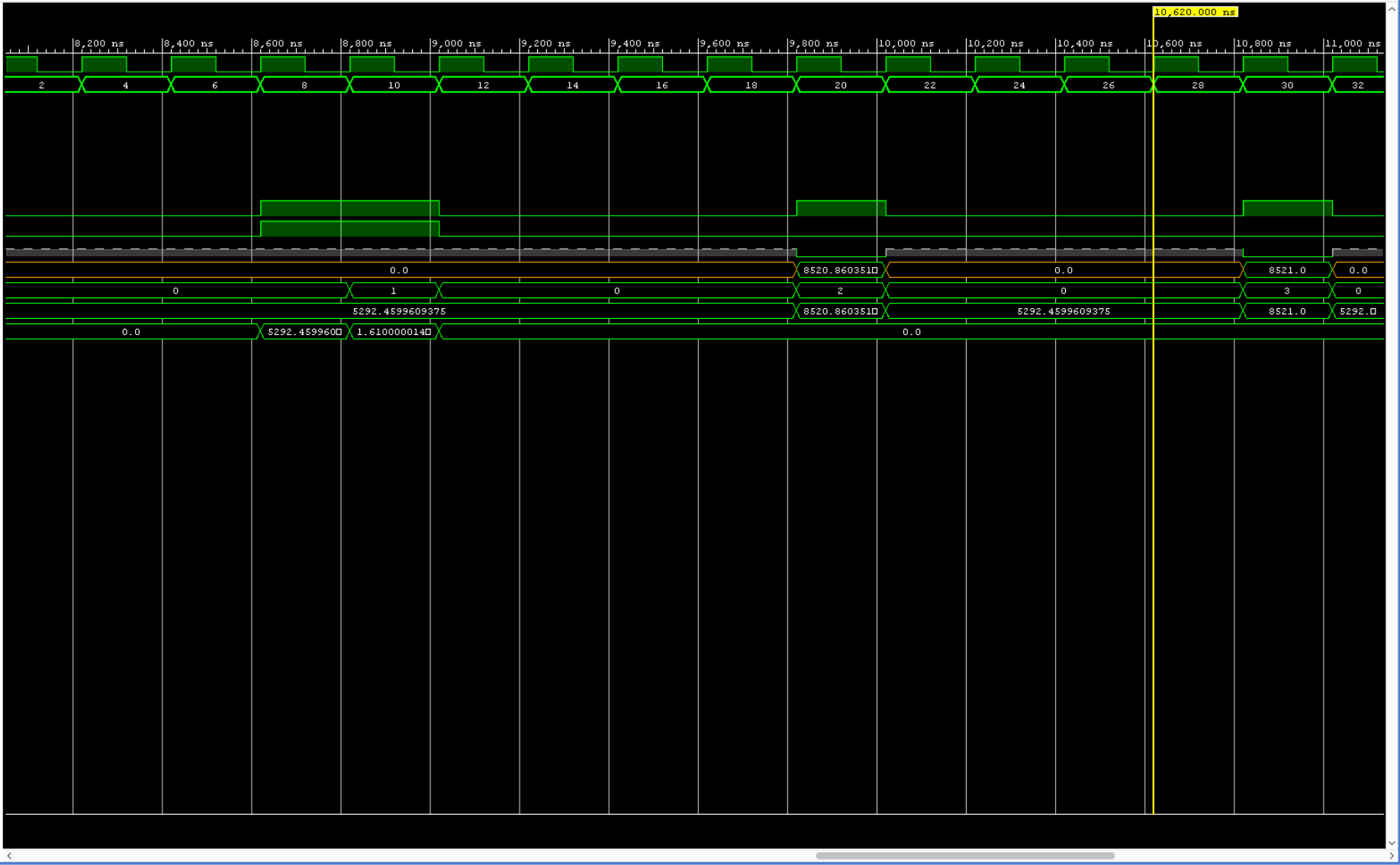


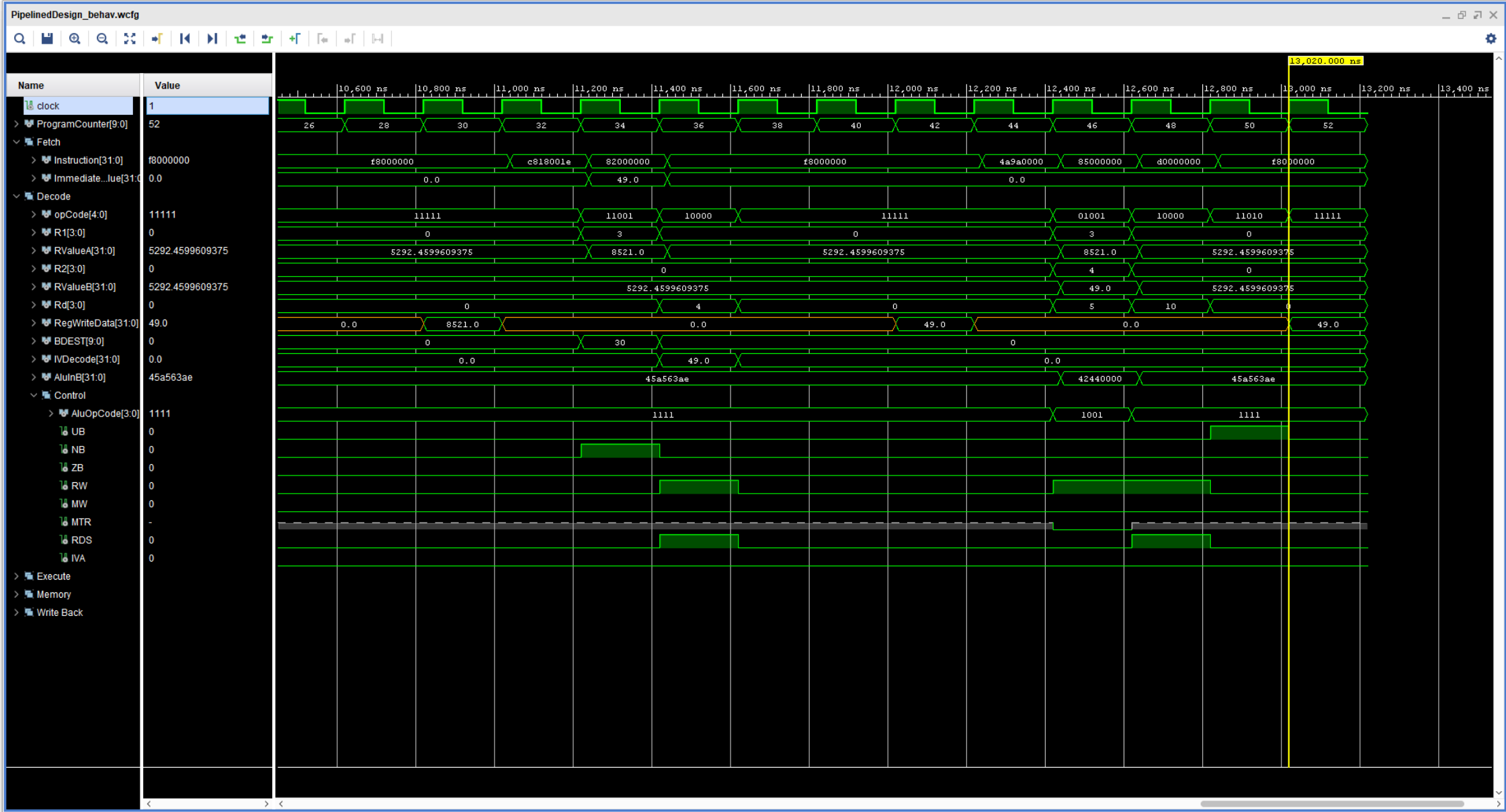


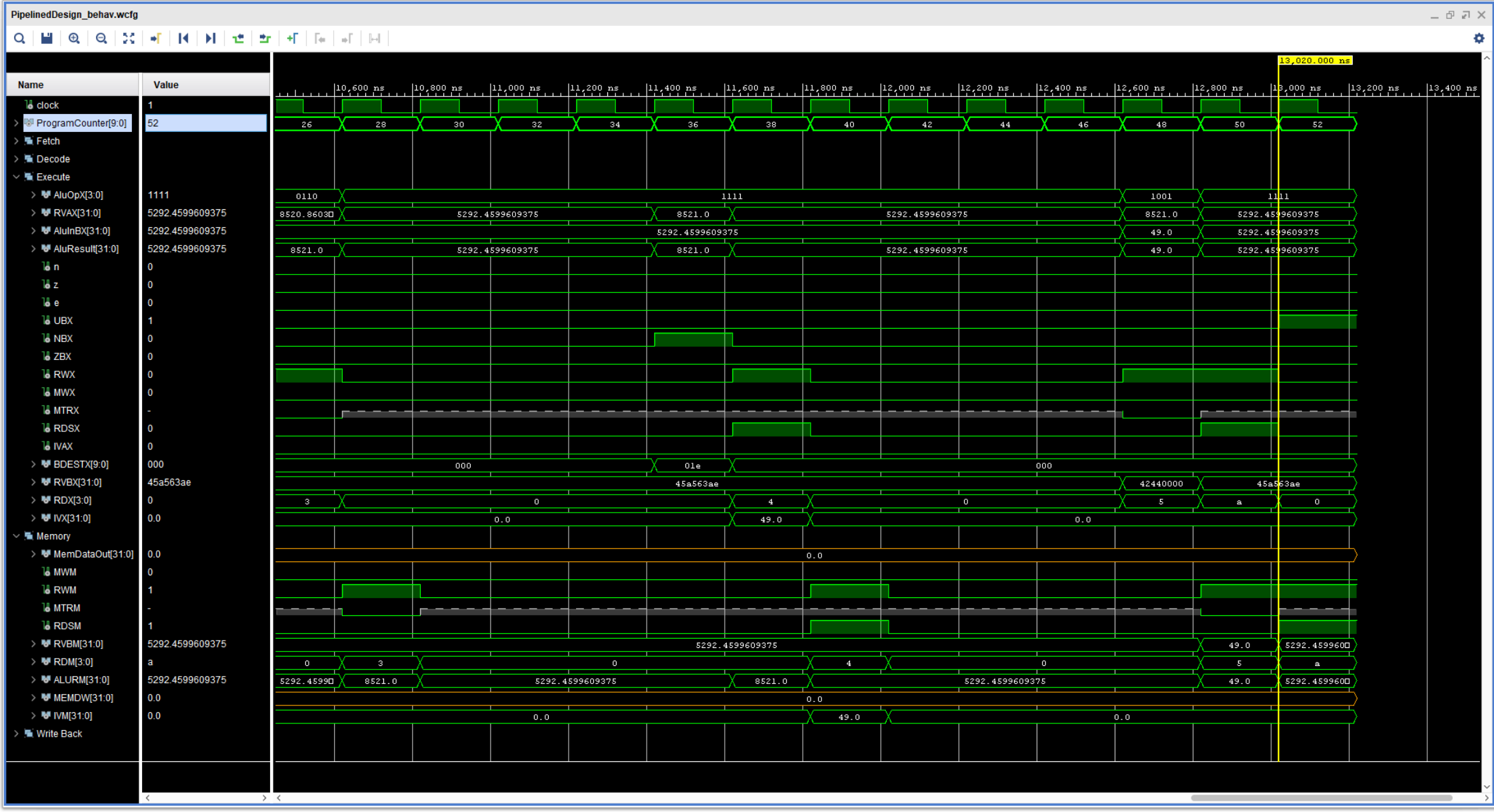




Name	Value
 clock	1
>  ProgramCounter[9:0]	28
>  Fetch	
>  Decode	
>  Execute	
>  Memory	
✓  Write Back	
 RWW	0
 RDSW	0
 MTRW	-
>  DataToReg[31:0]	0.0
>  RDW[3:0]	0
>  ALURW[31:0]	5292.4599609375
>  iWW[31:0]	0.0







Name	Value
clock	1
>  ProgramCounter[9:0]	52
>  Fetch	
>  Decode	
>  Execute	
>  Memory	
>  Write Back	
RWW	1
RDSW	0
MTRW	0
>  DataToReg[31:0]	49.0
>  RDW[3:0]	5
>  ALURW[31:0]	49.0
>  IWW[31:0]	0.0

