

IEEE P1581

Receiver Test Enhancement

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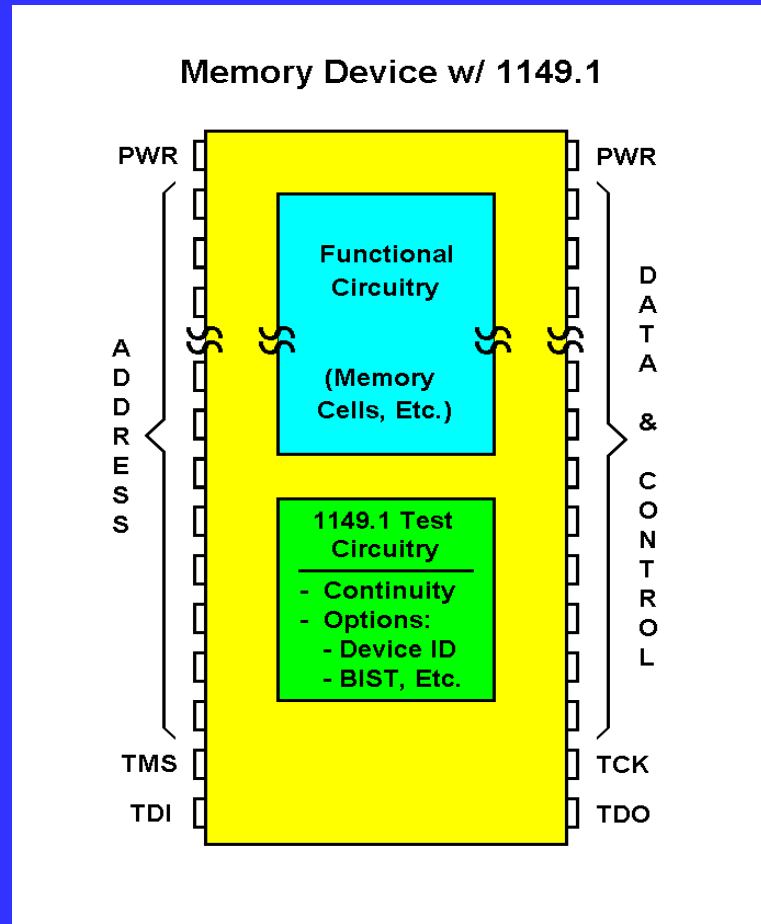
P1581 Working Group may or may not agree with content.

RJR BTW 16 SEP 2009

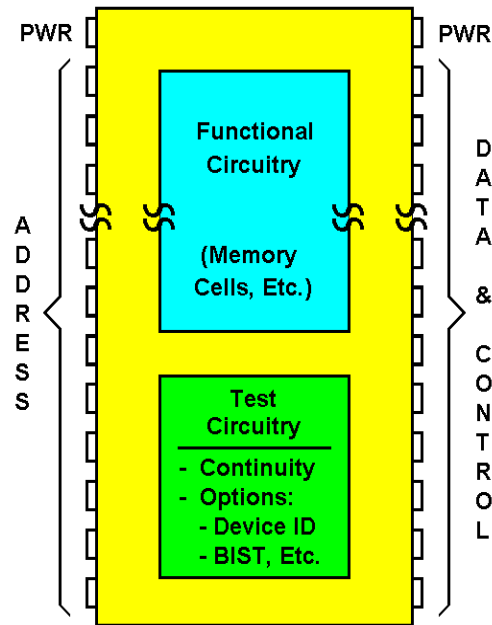
Outline

- P1581 Refresher
- Receiver Test Problem
- Solution
- Future P1581 Plans

Refresher - 1149.1 Problem

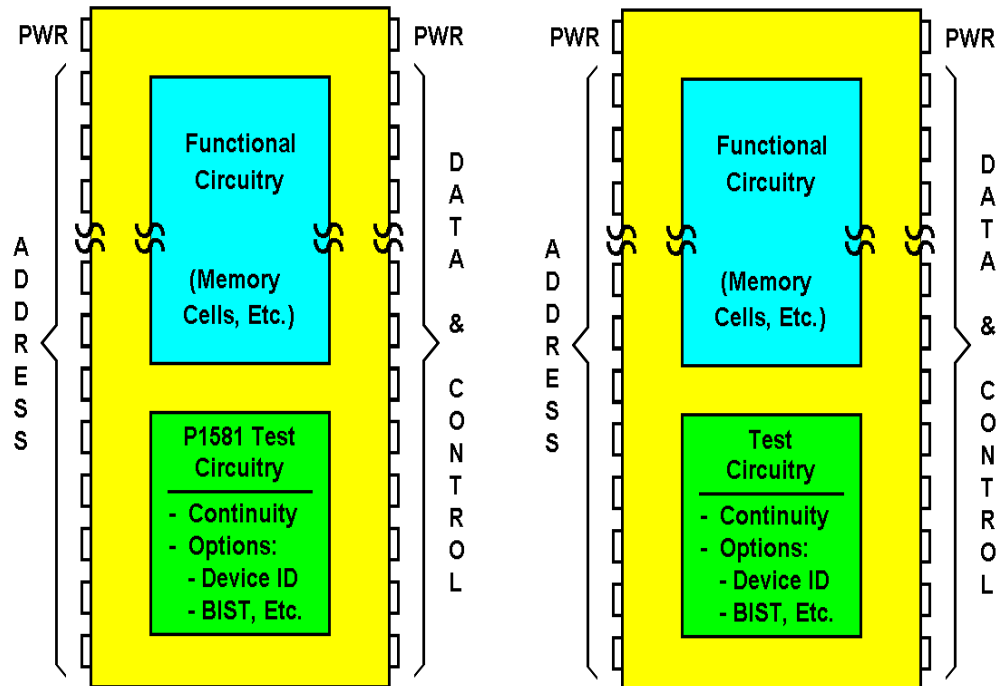


Ideal Solution

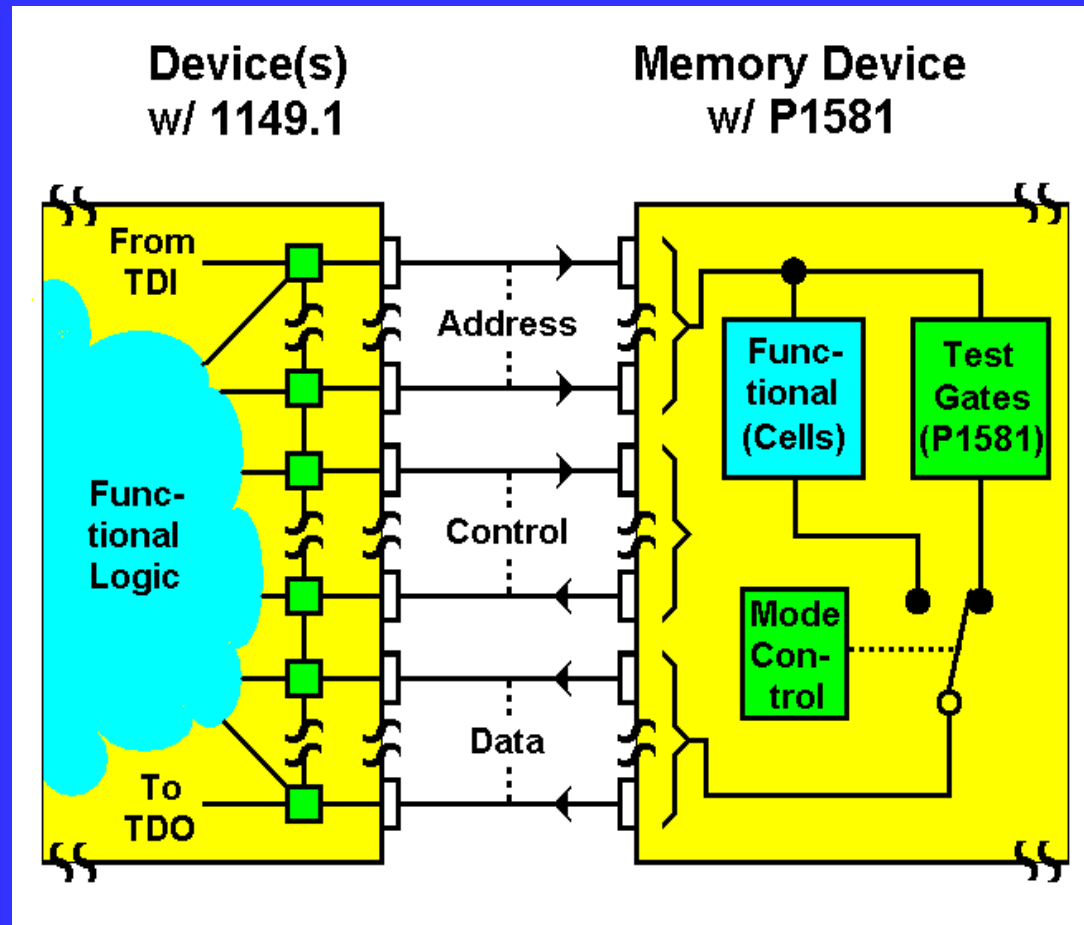


P1581 Vs. Ideal

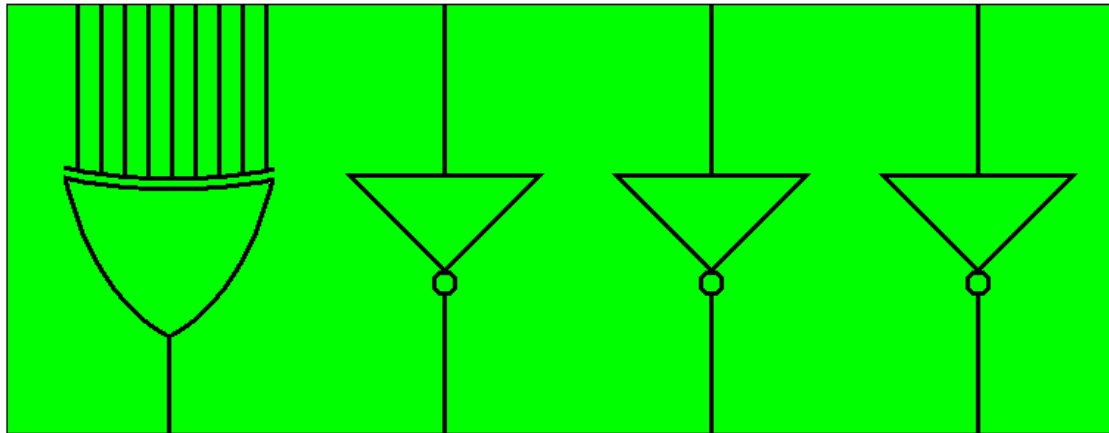
Memory Device w/ P1581



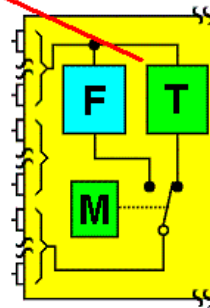
P1581 Continuity Test Concept



Continuity Test Gating - IAX



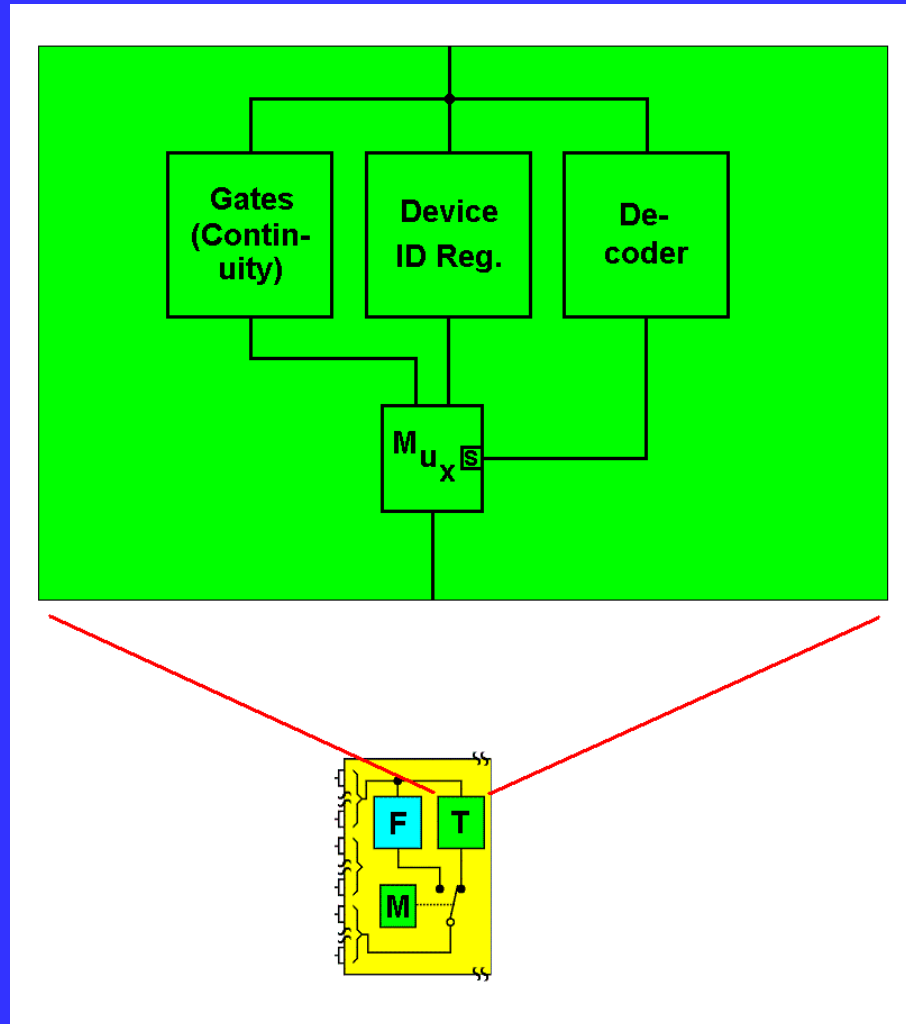
(12 Address, 4 Data Bits)



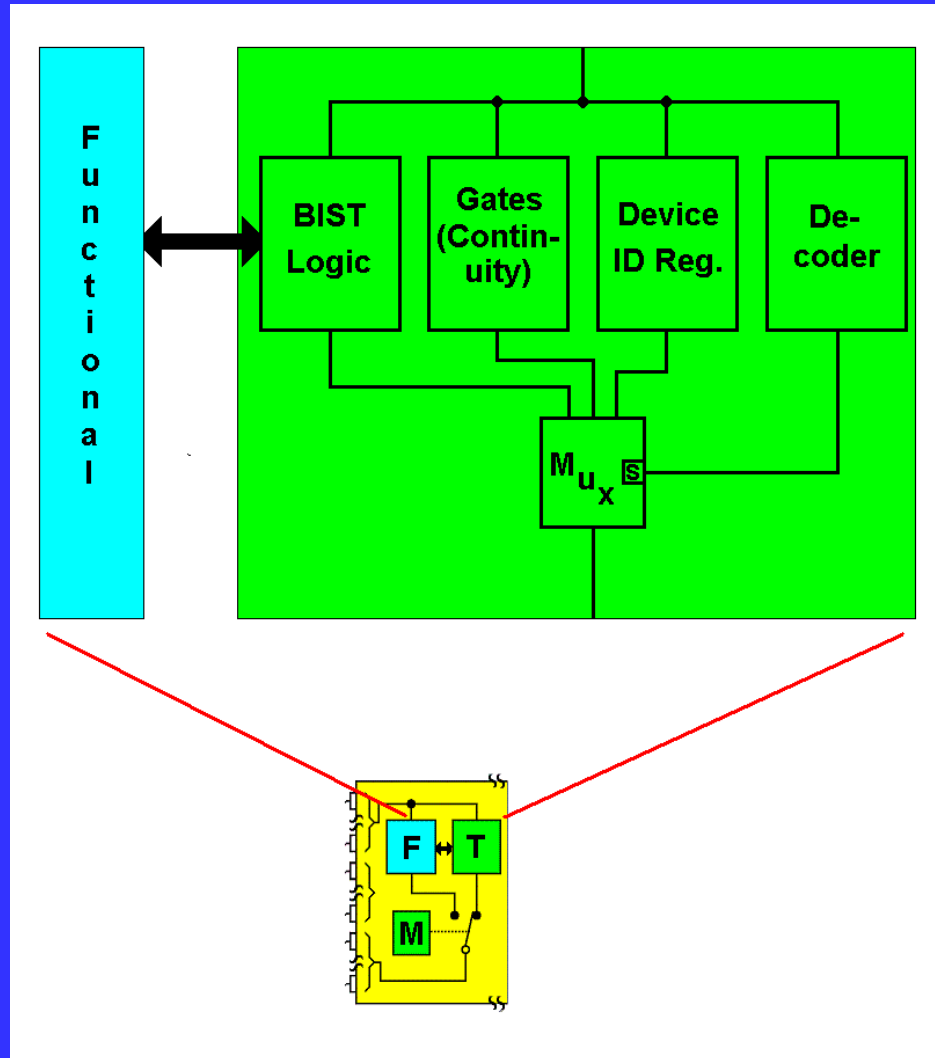
Test Pattern Partitioning

<u>12 Address Bits</u>			
Unpartitioned			
XXXXXXXXXXXXXX	4096	Continuity	
Partitioned			
All 0's/1's	2	Continuity	
One 0/1	24	"	" "
Two 0's/1's	132	"	" "
1110000XXXXX	32	Device ID	
101010XXXXXX	64	Public	
010101XXXXXX	64	Private	

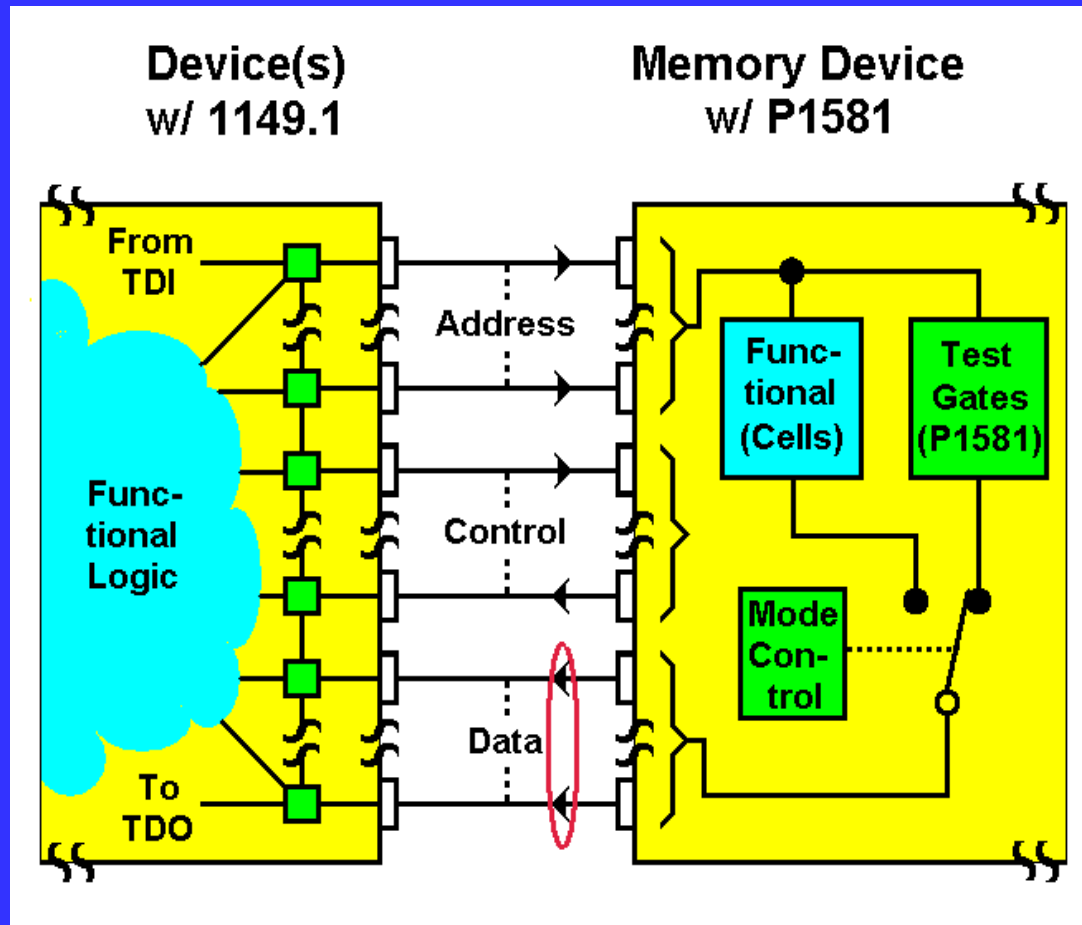
Device Identification Option



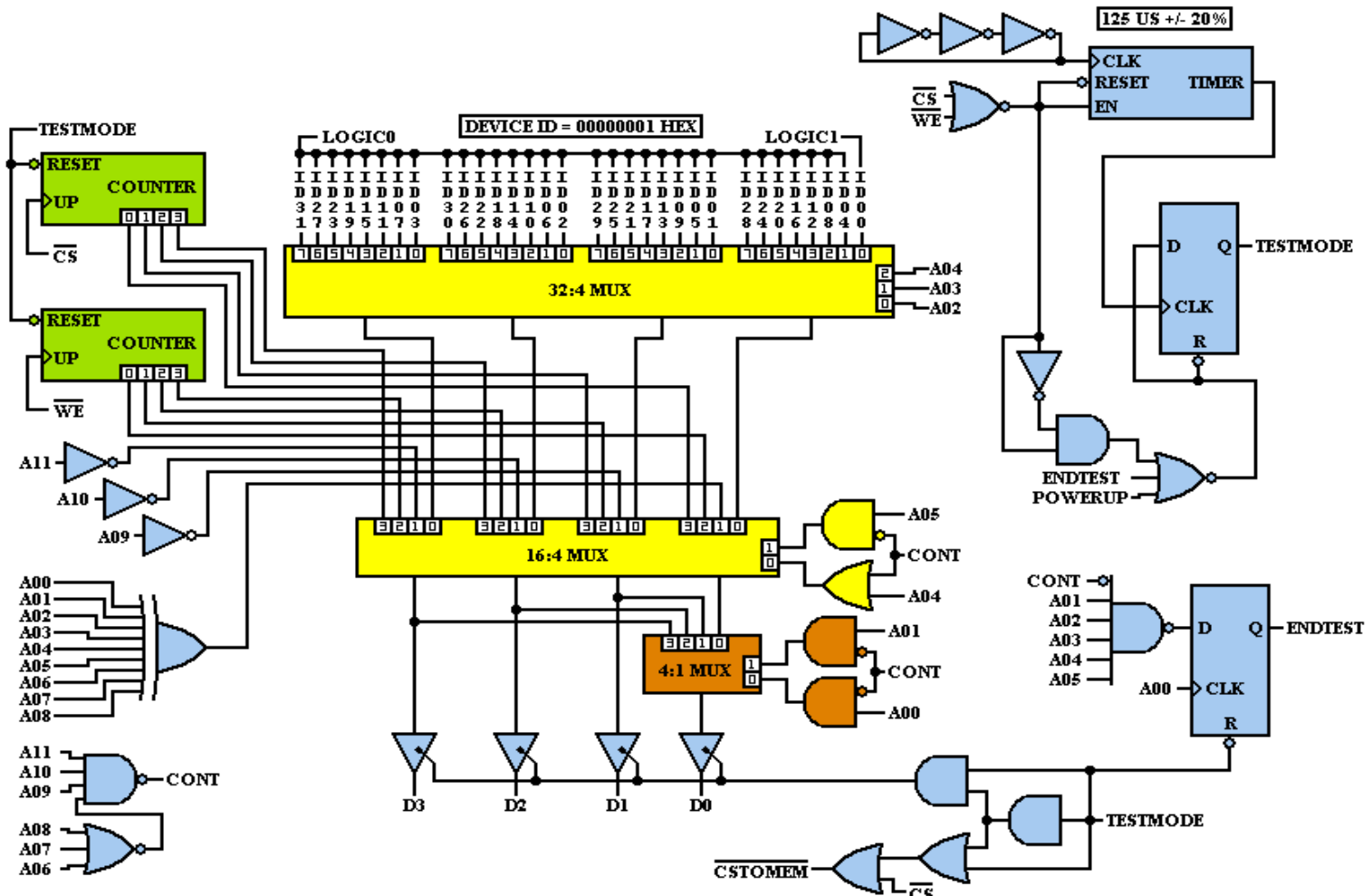
BIST & Device ID Options



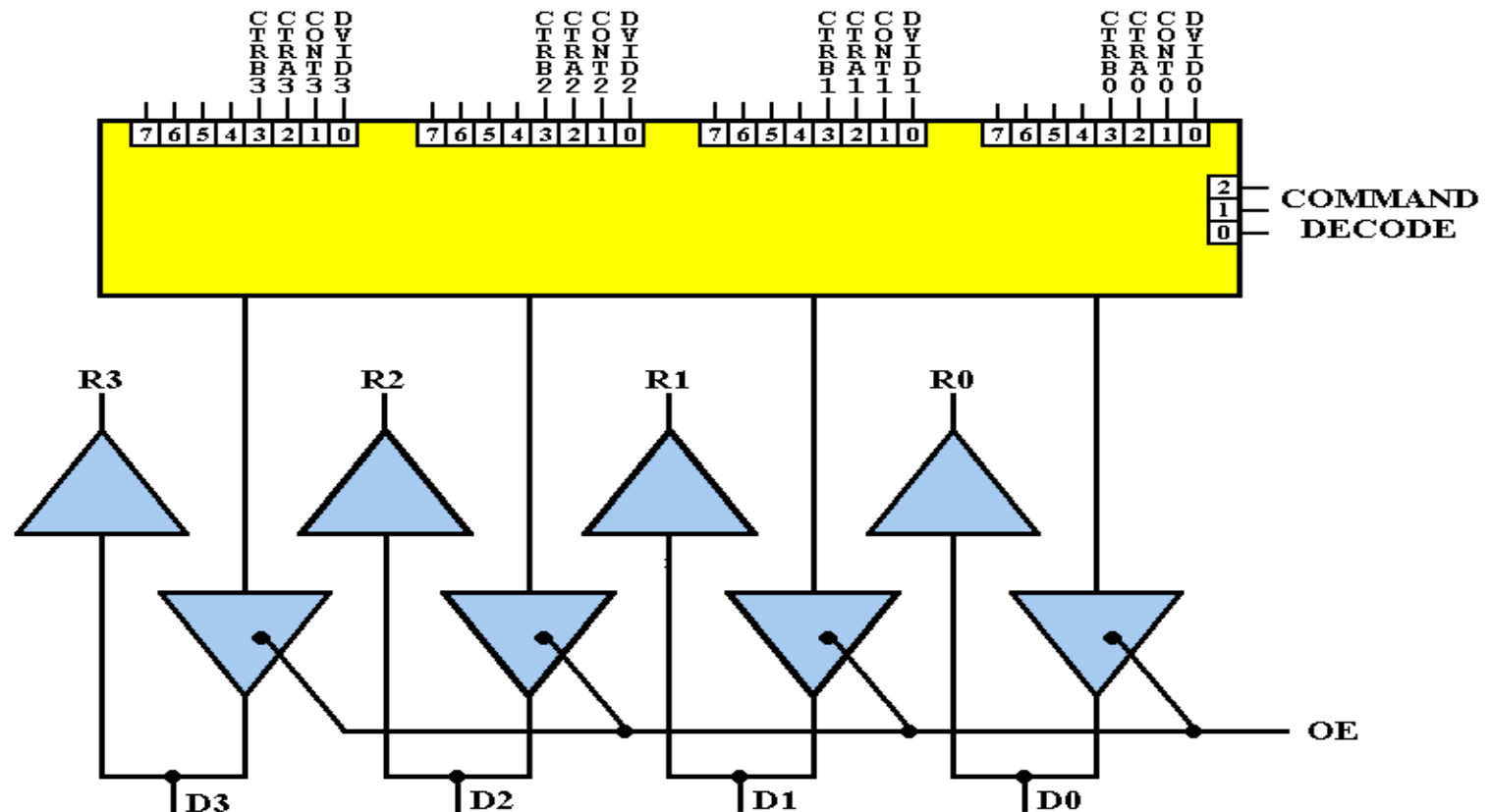
Receiver Test Issue



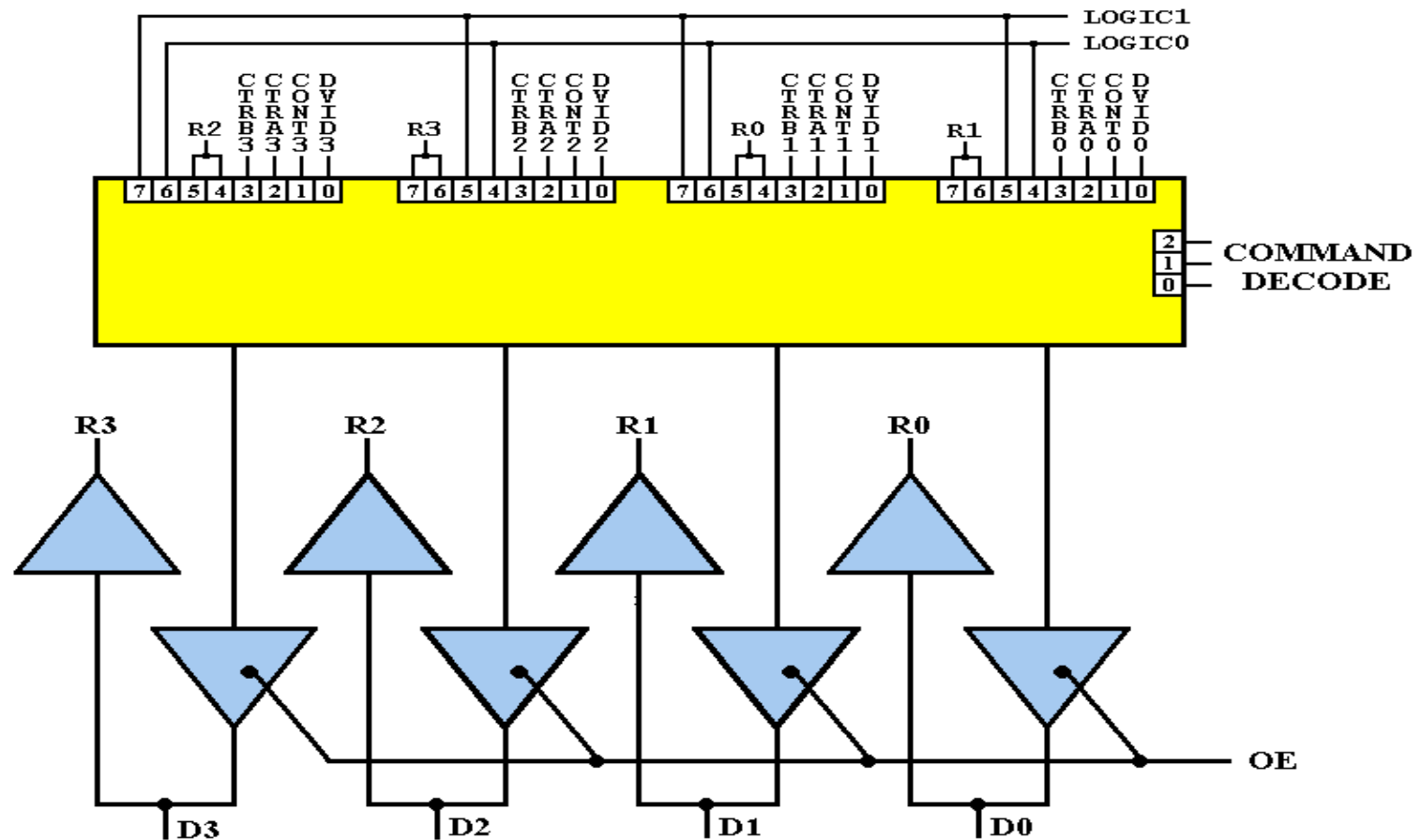
Basic P1581 Circuitry



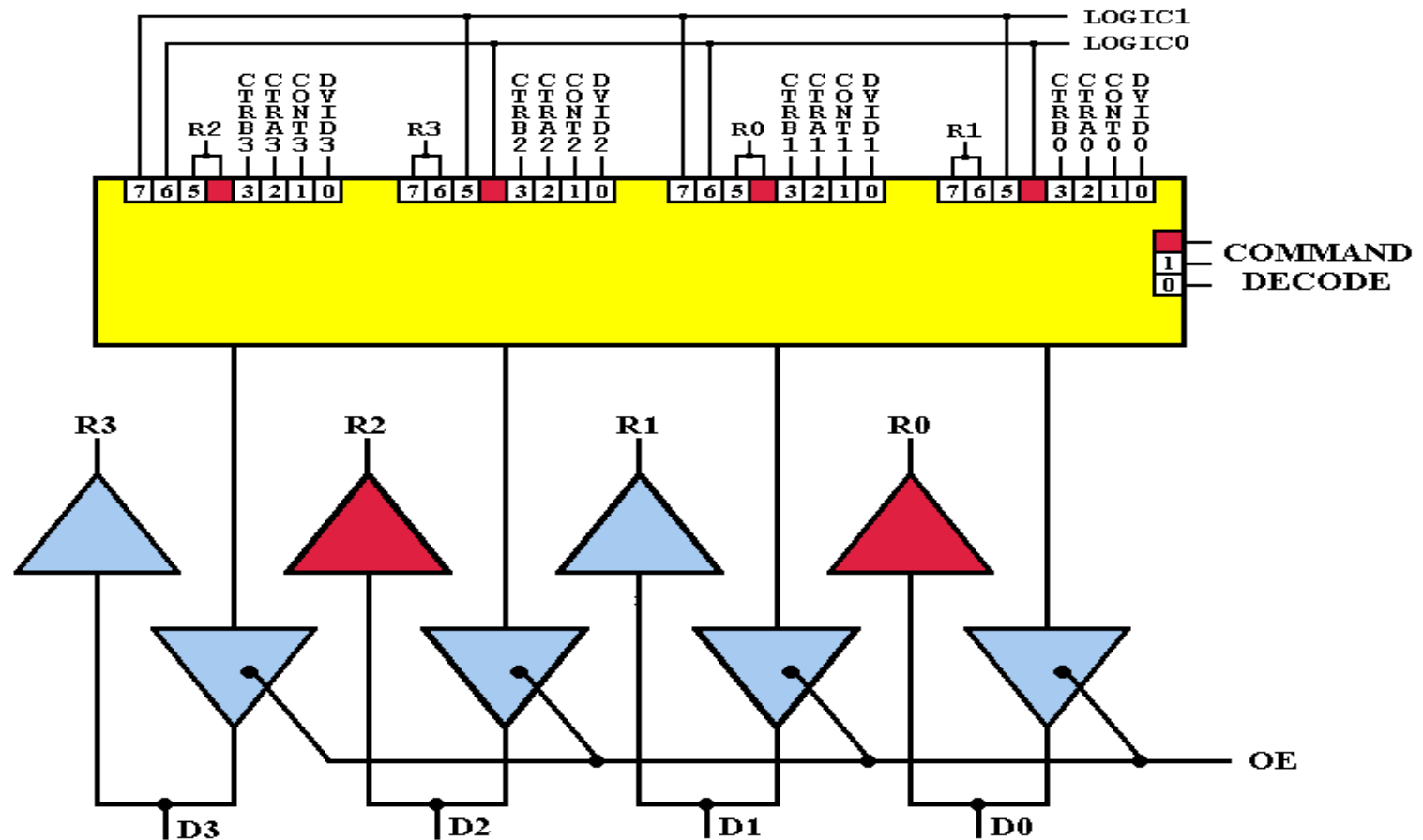
Basic Output Section



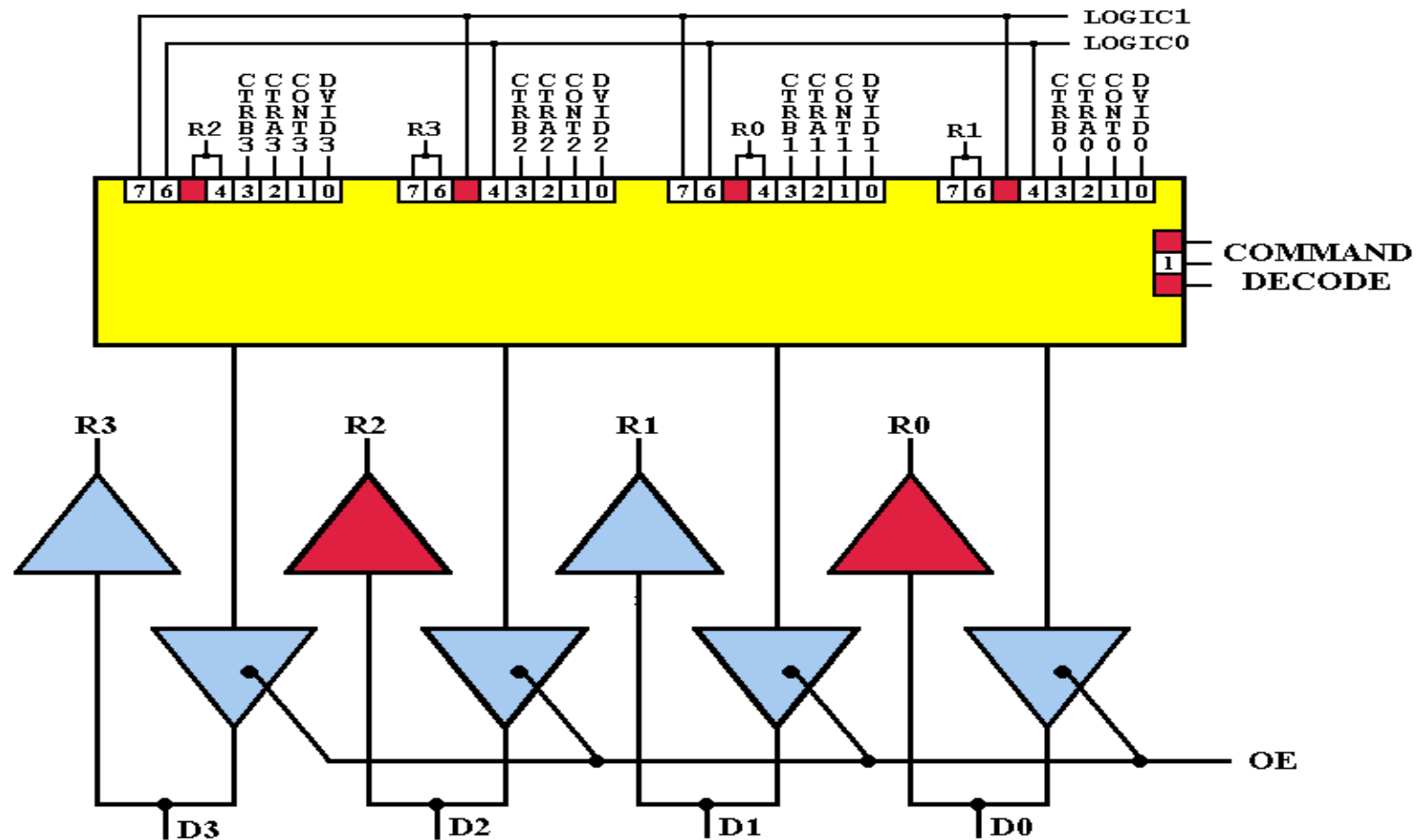
Rcvr. Test Conns. Added



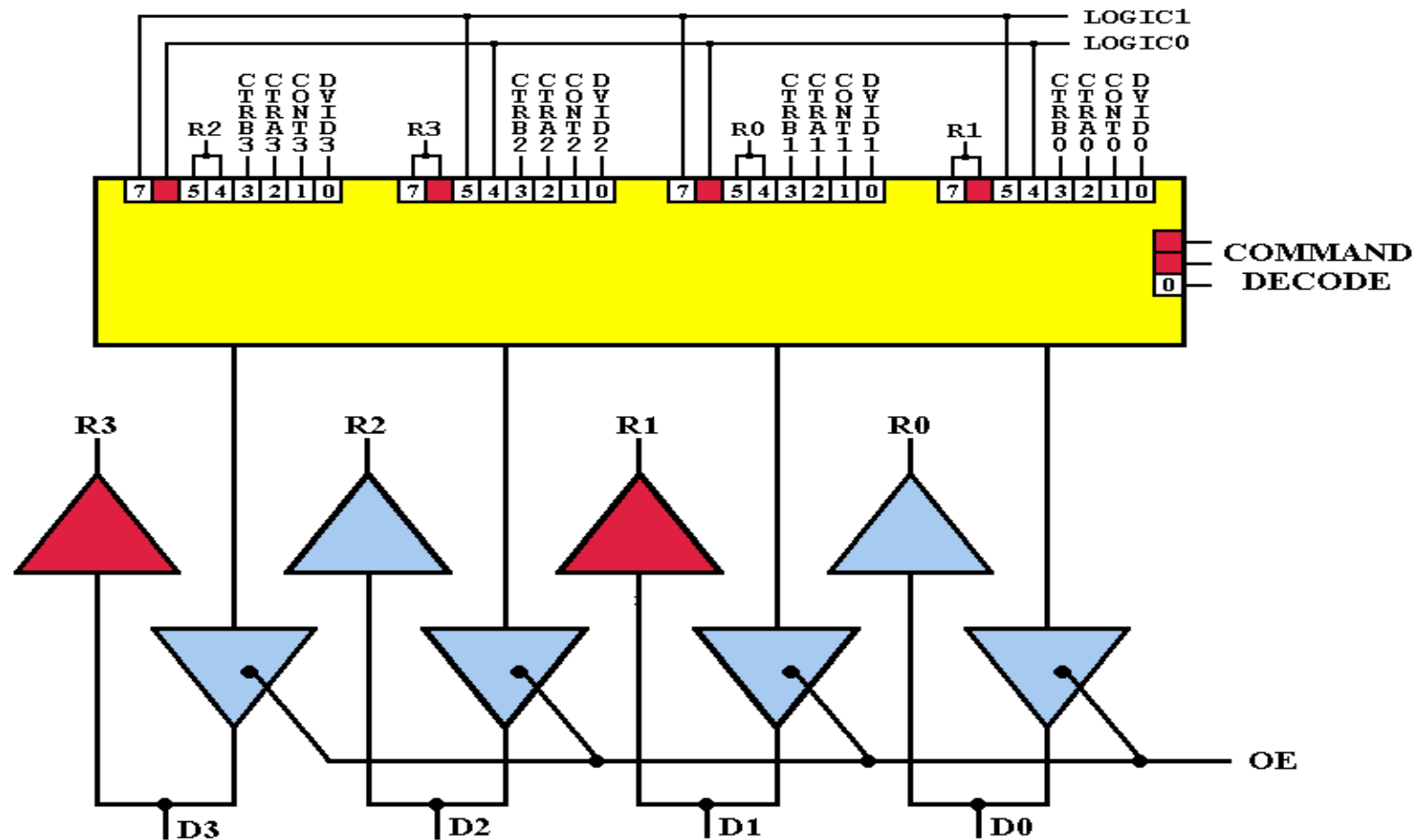
Step 1



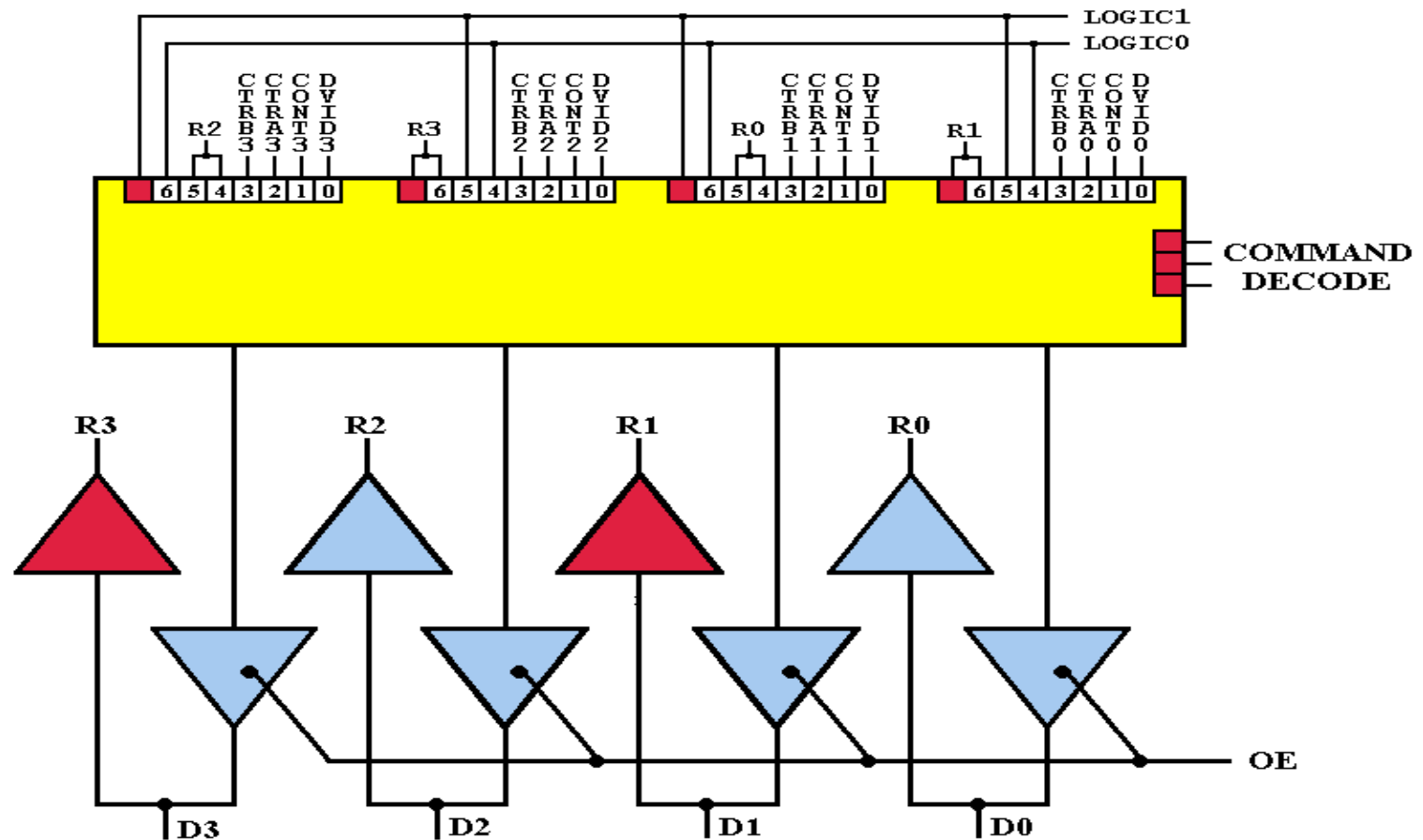
Step 2



Step 3



Step 4



Working Group Future Plans

- Complete Draft
- Ballot & Ballot Resolution (Then Std. 1581)
- Develop 1581 Description Language
- Consider Receiver Test Enhancement
- Consider Other Enhancements (TBD)
- Complete Revised Draft and Ballot (1581 rev. B)

Conclusion

- P1581 Receiver Test Potential
- P1581 Ballot In Near Future
- Next P1581 Revision Already Being Considered

Further Information

- IEEE P1581 Working Group Website:
<http://grouper.ieee.org/groups/1581>
- Read White Paper (on website)
- Sit In On WG Phone Conference
- Contact Author: r.russell@ieee.org
- Discuss w/ H. Ehrenberg (Chair) at BTW