

A carry Look ahead adder calculates the Carry on from the previous inputs in parallel instead of waiting for the previous carry in from the sum. The trade off is that it is more complicated, and takes up more space compared to a ripple carry adder, but it is faster.

Α	В	Ci	Ci+1	Condition
0	0	0	0	
0	0	1	0	No carry generate
0	1	0	0	
0	1	1	1	
1	0	0	0	No carry propagate
1	0	1	1	
1	1	0	1	
1	1	1	1	Carry generate