$X_{0\to16}$ $Y_{0\to16}$

XOR

C_{n-1}

RCA
16 bit
adder

as

OC ← XOR
Cout

S_{0-16}

Ripple Carry Adder 16

→ as $= 0 \Rightarrow$ addition
     $= 1 \Rightarrow$ subtract^n

→ oc $= 0 \Rightarrow$ no overflow
     $= 1 \Rightarrow$ overflow

→ $C_{n-1} \Rightarrow$ carry bit $(n-1)$
   $C_{out} \Rightarrow$ carry bit (n)

→ $S_{0\to16} \Rightarrow$ output sum (16 b

Individual Block - Chain