

15:AS  
s = a + b;

```
graph TD; A([15:AS  
s = a + b;]) --> B([16:AS  
overflow = a[7] & b[7] & ~s[7] | ~a[7] & ~b[7] & s[7] & a[6:0] + b[6:0];]);
```

16:AS  
overflow = a[7] & b[7] & ~s[7] | ~a[7] & ~b[7] & s[7] & a[6:0] + b[6:0];