

Bryant Har

Q5/A5

M:  $S_1, S_0 : h_1, h_0$

0-9	0-5	0-9	0-9	0-9
M	$S_1$	$S_0$	$h_1$	$h_0$

A6

Increment Conditions

M:  $S_1 = 5, S_0 = 9, h_1 = 9, h_0 = 9$ , rising clock edge

$S_1$ :  $S_0 = 9, h_1 = 9, h_0 = 9$ , rising clock edge

$S_0$ :  $h_1 = 9, h_0 = 9$ , rising clock edge

$h_1$ :  $h_0 = 9$ , rising clock edge

$h_0$ : always on rising clock edge

A7 Reset Conditions

- Always reset to 0 when reset input enabled for all digits

M:  $M = S_0 = h_1 = h_0 = 9, S_1 = 5$

$S_1$ :  $S_1 = 5, S_0 = h_1 = h_0 = 9$

$S_0$ :  $S_0 = h_1 = h_0 = 9$

$h_1$ :  $h_1 = h_0 = 9$

$h_0$ :  $h_0 = 9$