Clk
25.175 MHz
(39.8ns)

Horizontal Count
Reset when 800*CLK=31.77us

Vertical Count
Incremented every 31.77us
Reset when 31.77*525=16.68ms

Video on Control Signal

Video on=‘0’

Video on=‘1’

(Horizontal Sync Pulse)

Hcount >= HSYNC_BEGIN(659)
Hcount <= HSYNC_END(755)

Horiz_Sync = '1'

Horiz_Sync = '0'

(Active-Low)

(Horizontal Sync Pulse)

Hcount <= H_DISPLAY_END(639)
Vcount <= V_DISPLAY_END(479)

Video on = '1'

Video on = '0'

(Active-High)

(Vertical Sync Pulse)

Vcount >= VSYNC_BEGIN(493)
Vcount <= VSYNC_END(494)

Vert_Sync = '1'

Vert_Sync = '0'

(Active-Low)

Hcount = H_MAX (799)

INC Hcount

Hcount = 0

INC Vcount

Vcount = V_MAX (524)

Vcount = 0

Hcount = H_VERT_INC (699)