









## Gate On Voltage (VGH)

The Gate On Voltage can be set for various voltages using **R7** and **R20**.

$$VGH = \frac{0.095v}{R7} \times (R20 + R7)$$

**E.g.**

$$\left(\frac{95 \times 10^{-3}}{105}\right) (20 \times 10^3 + 105) = 18.72V$$

## Gate Off Voltage (VGL)

The Gate Off Voltage is set by D2 at -6.2V.

## Common Voltage (VCOM)

The Common Voltage can be set for various voltages using a potentiometer **VR1**.

## LED Backlight Current

The LED Backlight is driven by a constant current circuit which can be set for various currents using **R21** and **R22** (please, see circuit diagram).

$$LED\ Current = \frac{0.2v}{R21//R22}$$

**E.g.**

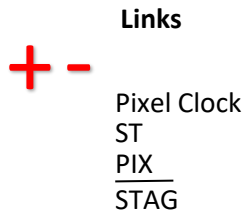
$$\frac{0.2}{1.3//1.3} = \frac{0.2}{0.65} = 308mA$$

## Solder Links on back of PCB

There are 9 solder links on the board 1 on the front and 8 on the back of the PCB to set various options for the IC.

(HDMI to RGB IC)

Link	+	- (Default)
<b>Pixel Clock</b>	RGB Data clocked on +Ve edge	RGB Data clocked on -Ve edge
<b>ST</b>	High RGB Data drive strength	Low RGB Data drive strength
<b>PIX</b>	Two pixels per clock	One pixel per clock
<b>STAG</b>	Simultaneous pixel output	Staggered pixel output



**R-FB** (RGBS to LVDS IC)  
 OPEN= Falling edge clock (default).  
 CLOSED= Rising edge Clock.

**6/8** (Default CLOSED)  
 OPEN= 6-Bit.  
 CLOSED= 8-Bit.

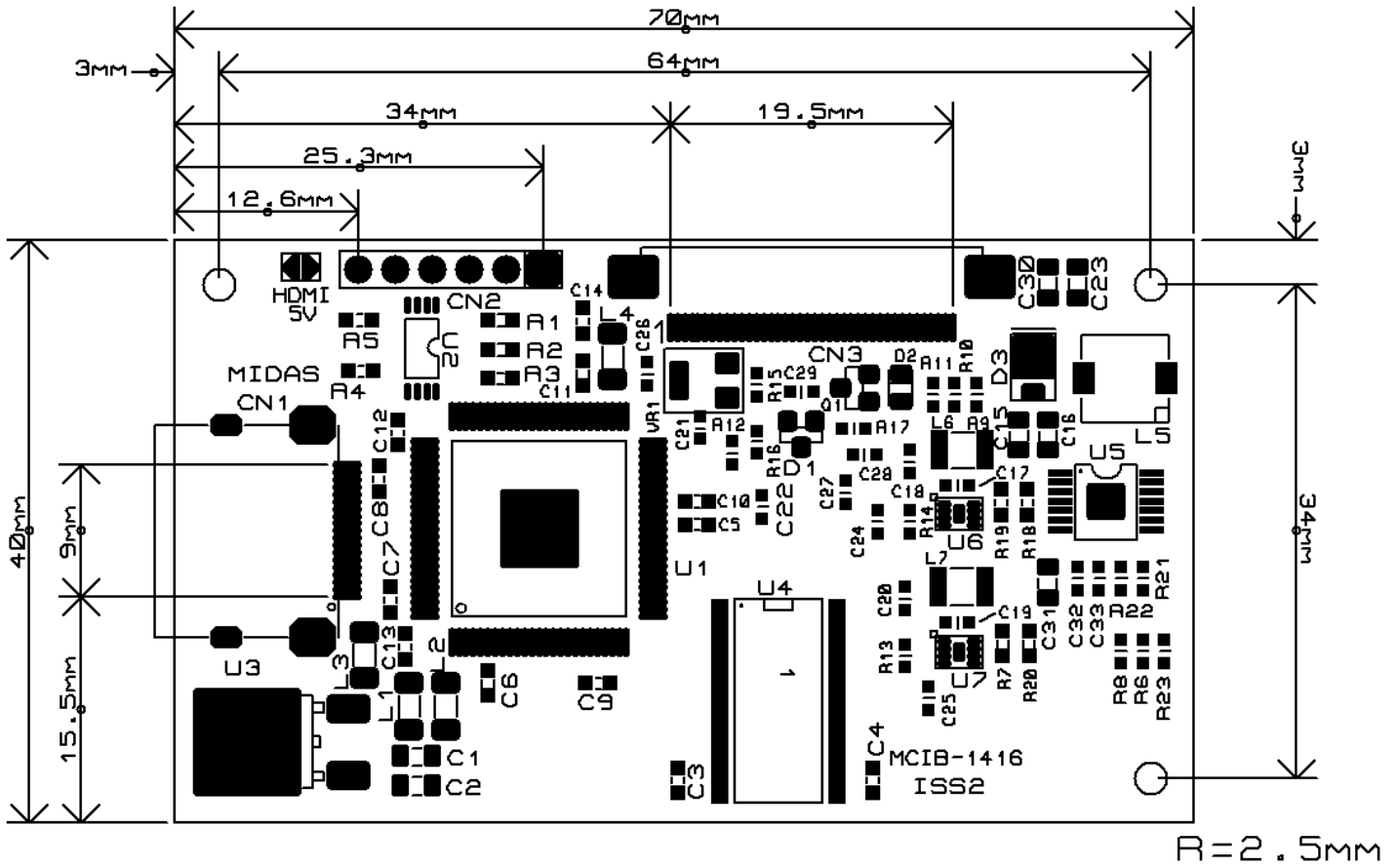
**LR** (Default OPEN)  
 OPEN= LR.  
 CLOSED= RL.

**UD** (Default closed)  
 OPEN= UD.  
 CLOSED= DU.



**HDMI** (Default open)  
**5V** OPEN= 5V via CN2.  
 CLOSED= 5V via HDMI.

## Mechanical Drawing



\*Note all measurements are in mm unless stated otherwise.