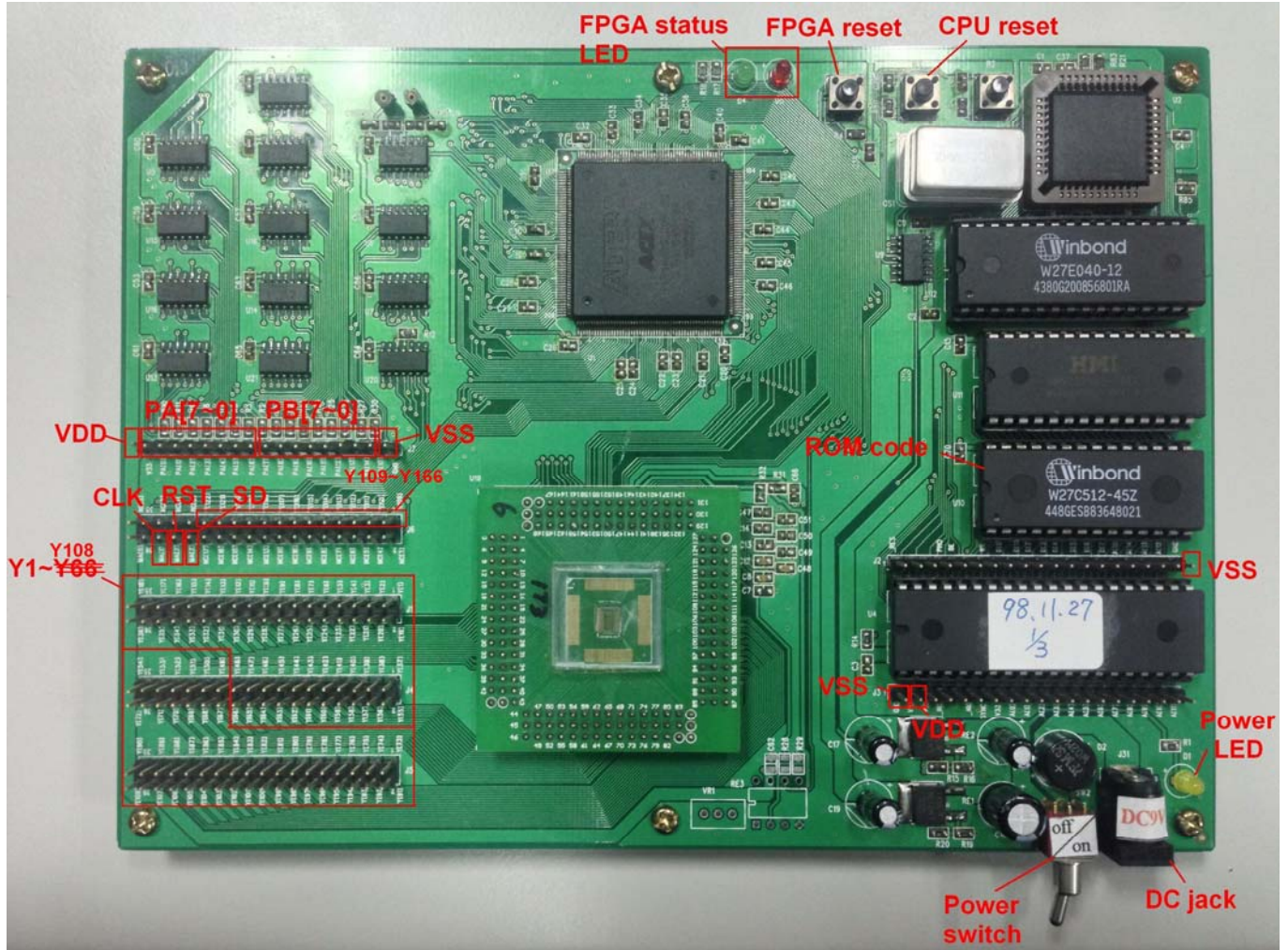


DM120C16E Evb User Manual

Version: 1.0

*Technical Reference Manual
Davicom Semiconductor, Inc
May 25, 2016*

1. TOP View



Pin definition :

EVb pin name	IC pin name	I/O , P	Description
V33	VDD	P	Positive power source 1
GND	VSS	P	Negative power source 2
PA[0 ~ 7]	PA[0 ~ 7]	I/O	GPIO port A
PA[8 ~ 15]	PB[0 ~ 7]	I/O	GPIO port B
Y[1 ~ 120]	Y[1 ~ 120]	O	Hi-V output channels : segment
Y[121]	Y[121]	O	Hi-V output channels : background
Y[122]	Y[122]	O	Hi-V output channels : common
MA[1]	CLK	O	ISO-7816 : clock output
MA[2]	RST	I/O	ISO-7816 : reset
MA[3]	SD	I/O	ISO-7816 : Data in/out

*I/O = bidirectional, P = power source, O = output only

- (1) EPD driver build in totally 122 channels from Y[1] ~ Y[122] in which Y[120] are segment · Y[121] = background · Y[122] = common
- (2) ISO-7816 : MA[1~3] , include MA[3] = SD · MA[2] = RST · MA[1] = CLK
- (3) GPIO : PA[0~7] represent EV-Board PA[0~7] , PB[0~7] as EV-board PB[7~0]

**The terminals segment , background, common are three types of EPD driver. It base on E-paper film property. All these detail information could be found in E-paper vendor.*

DC characteristic :

Description	Symbol	Value			Unit
		Min.	Typ.	Max.	
Positive power 1	VDD		3.3		V
Negative power 2	GND		0±0.5		V
HV source 1	VPP		36±5		V
HV source 2	VX5		18±5		V

ROM code programming :

Here we use W27C512 as 16K byte ROM code. When ROM code revised we need to use programmer

**28pins compatible programmer is needed. When programming W27C512 the offset of starting address = \$4000h*

**It's more convenient to use ROM emulator to replace W27C512*

Check before using :

Please check users code had already programming into W27C512. The AC to DC(9V) adaptor connect to DC jack. Turn on the power switch (power LED will light) and green LED will light when EV-board ready (but red LED light means error).

**Please to note the AC input range which is marked on the adapter.*

Key function :

Key B1 is FPGA reset key. The red LED will light after this key be trigger and it turning into green light 2~3 seconds later. If green LED isn't lighting please return EV-board to repair.

Key B2 is reset key for only CPU

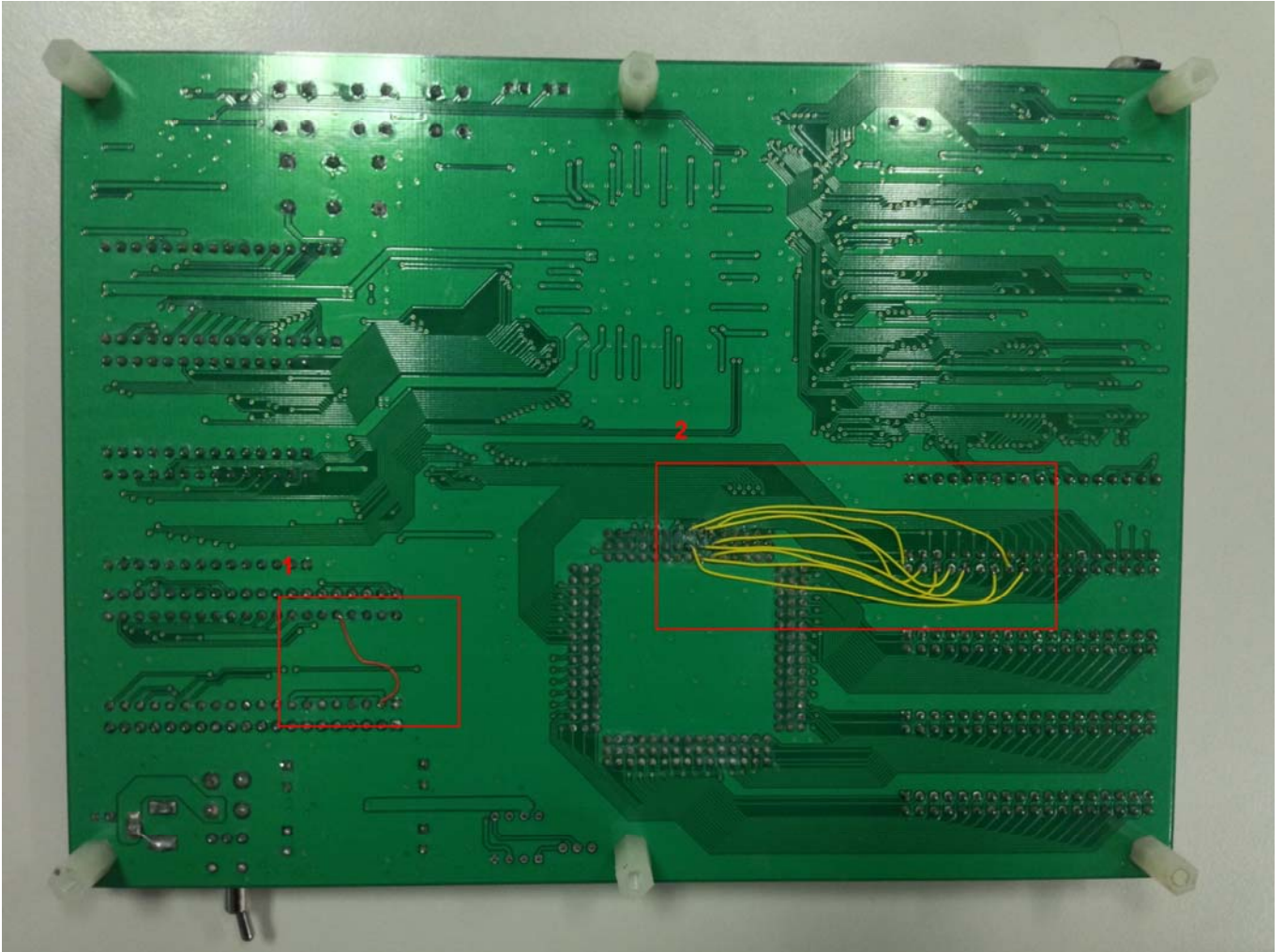
Key B3 is reserved

**If user want to reset program that we recommend CPU reset key(B2)*

Operating sequence :

1. After all the check before using
2. Turn on the power switch then the power LED will light and also FPGA green LED.
3. EV-board will operate as IC.

2. BOTTOM View



**User must be careful that bottom side of Evb have revise line*

Revise history :

Date	Version	Annotation
2016/05/25	V1.0	Original