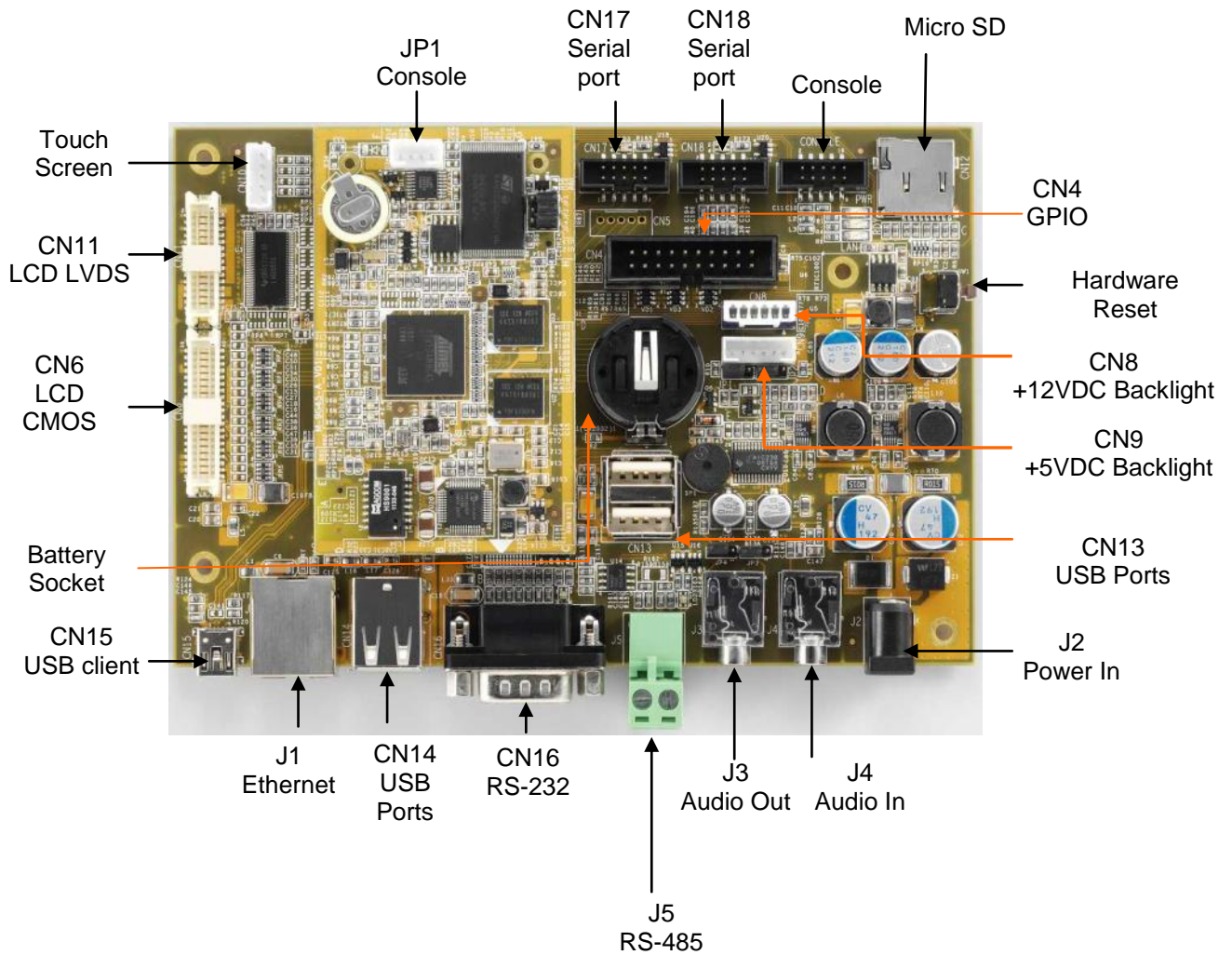


M-9G45A-EV Hardware Guide



Power: 9~30VDC

LCD Panel default setting: 800x480

Ethernet IP address: 192.168.2.127

Serial Console: RS-232 115200, N81, VT100

CN6 Connector: Refer to CSI-4585-400R

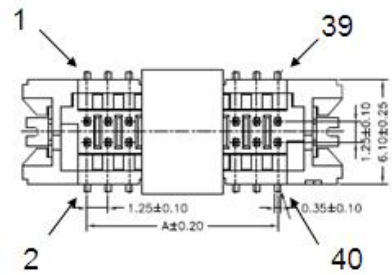
CN11 Connector: Refer to CSI-4585-300R

CN7 Connector: Refer to CSF-2481-401R (On the back)

External Battery Socket: Use 3V CR2032 (Battery is not included)

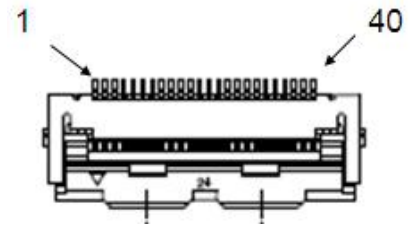
EV-9G45A Connectors Pin Assignment

CN6: LCD CMOS Signal		
Pin No.	Pin name	Function
1	LCD_VCC5	VCC_5V
2	LCD_VCC5	VCC_5V
3	GND	GND
4	GND	GND
5	LCD_VCC3	VCC_3.3V
6	LCD_VCC3	VCC_3.3V
7	GND	GND
8	GND	GND
9	B0	LCD_BLUE0
10	B1	LCD_BLUE1
11	B2	LCD_BLUE2
12	B3	LCD_BLUE3
13	B4	LCD_BLUE4
14	B5	LCD_BLUE5
15	B6	LCD_BLUE6
16	B7	LCD_BLUE7
17	G0	LCD_GREEN0
18	G1	LCD_GREEN1
19	G2	LCD_GREEN2
20	G3	LCD_GREEN3
21	G4	LCD_GREEN4
22	G5	LCD_GREEN5
23	G6	LCD_GREEN6
24	G7	LCD_GREEN7
25	R0	LCD_RED0
26	R1	LCD_RED1
27	R2	LCD_RED2
28	R3	LCD_RED3
29	R4	LCD_RED4
30	R5	LCD_RED5
31	R6	LCD_RED6
32	R7	LCD_RED7
33	GND	GND
34	GND	GND
35	LCDDOTCK	LCD Dot Clock
36	LCDVSYNC	LCD Vertical Sync
37	LCDDEN	LCD Data Enable
38	LCDHSYNC	LCD Horizontal Sync
39	LCDCC	LCD Contrast Control
40	ON/OFF	LCD B/L ON/OFF Control



CN6: DF13 2x20 Pitch 1.25mm

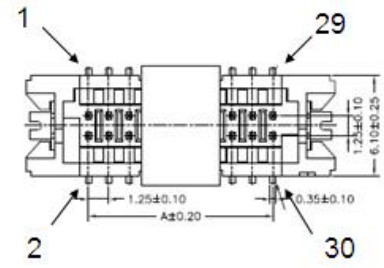
CN7: LCD CMOS and Touch Screen signal		
Pin No.	Pin name	Function
1	GND	GND
2	GND	GND
3	PWM	LED Brightness Adj.
4	LCD_VCC5	VCC_5V
5	LCD_VCC5	VCC_5V
6	LCD_VCC5	VCC_5V
7	LCD_VCC3	VCC_3.3V
8	LCD_VCC3	VCC_3.3V
9	LCDDEN	Data Enable Timing Signal
10	SK/XL	Touch Screen Left channel
11	DO/XR	Touch Screen Right channel
12	DI/YB	Touch Screen Bottom channel
13	B7	LCD_BLUE7
14	B6	LCD_BLUE6
15	B5	LCD_BLUE5
16	GND	GND
17	B4	LCD_BLUE4
18	B3	LCD_BLUE3
19	B2	LCD_BLUE2
20	GND	GND
21	G7	LCD_GREEN7
22	G6	LCD_GREEN6
23	G5	LCD_GREEN5
24	GND	GND
25	G4	LCD_GREEN4
26	G3	LCD_GREEN3
27	G2	LCD_GREEN2
28	GND	GND
29	R7	LCD_RED7
30	R6	LCD_RED6
31	R5	LCD_RED5
32	GND	GND
33	R4	LCD_RED4
34	R3	LCD_RED3
35	R2	LCD_RED2
36	TPCS/YU	Touch Screen Top channel
37	N.C	N.C
38	LCDDOTCK	LCD Dot Clock
39	GND	GND
40	GND	GND



CN7: FFC 40-pin pitch 0.5mm

Note: on the back of PCB

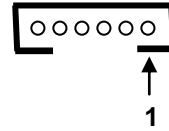
CN11: LCD LVDS Signal		
Pin No.	Pin name	Function
1	VCC3	VCC_3.3V
2	VCC3	VCC_3.3V
3	VCC3	VCC_3.3V
4	VCC3	VCC_3.3V
5	D5V	VCC_5V
6	D5V	VCC_5V
7	D5V	VCC_5V
8	D5V	VCC_5V
9	GND	GND
10	GND	GND
11	Y0P	LVDS channel 0 +
12	Y0M	LVDS channel 0 -
13	GND	GND
14	GND	GND
15	Y1P	LVDS channel 1 +
16	Y1M	LVDS channel 1 -
17	GND	GND
18	GND	GND
19	Y2P	LVDS channel 2 +
20	Y2M	LVDS channel 2 -
21	GND	GND
22	GND	GND
23	Y3P	LVDS channel 3 +
24	Y3M	LVDS channel 3 -
25	GND	GND
26	GND	GND
27	CLKOUTP	LVDS clock +
28	CLKOUTM	LVDS clock -
29	GND	GND
30	GND	GND



CN11: DF13 2x15 Pitch

CN8: LCD Brightness and ON/OFF Control (12V)

CN8: 12VDC LCD backlight output and control		
Pin No.	Pin name	Function
1	+12V	Voltage for LCD Backlight
2	+12V	Voltage for LCD Backlight
3	GND	Power Ground
4	GND	Power Ground
5	ON/OFF	LCD B/L ON/OFF Control*
6	DIM	Adjust the LCD brightness*

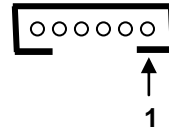


CN8: 6-pin pitch 2.0 mm box

Notice: Check your LCD backlight control voltage first. Misuse the voltage will damage the hardware.

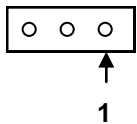
CN9: LCD Brightness and ON/OFF Control (5V)

CN9: 5VDC LCD backlight output and control		
Pin No.	Pin name	Function
1	+5V	Voltage for LCD Backlight
2	+5V	Voltage for LCD Backlight
3	GND	Power Ground
4	GND	Power Ground
5	ON/OFF	LCD B/L ON/OFF Control*
6	DIM	Adjust the LCD brightness*



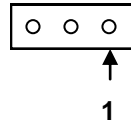
J8: 6-pin pitch 2.0 mm box

JP1*: DIM output level (PWM)



PWM Voltage Select
1-2 : 5V
2-3 : 3.3V

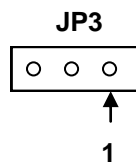
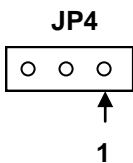
JP2*: B/L ON/OFF output level



ON/OFF Voltage Select
1-2 : 5V
2-3 : 3.3V

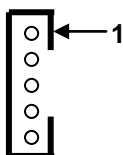
JP3 : Audio Output Select

JP4: Audio Output Select



	JP3	JP4
Line Out	1-2	1-2
Earphone Out	2-3	2-3

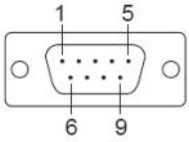
Touch: Touch Screen



TOUCH: Touch Screen control		
Pin No.	Pin name	Function
1	TPCS/YU	Touch Screen Top channel
2	DI/YB	Touch Screen Bottom channel
3	DO/XR	Touch Screen Right channel
4	SK/XL	Touch Screen Left channel
5	GND	GND

WAFER Box 2.0mm

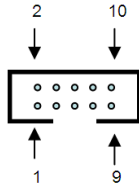
CN16: RS-232



DB9 Male Connector

Pin No.	RS-232
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	---

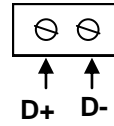
**CN17: RS-232
CN18: RS-232**



Box Header 2x5 2.0mm

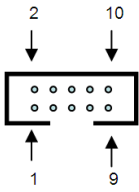
Pin No.	RS-232
1	---
2	---
3	RXD
4	RTS
5	TXD
6	CTS
7	---
8	---
9	GND
10	---

J5:RS-485



Terminal Block 1x2

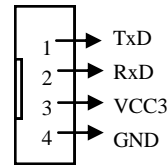
Console: RS-232



Box Header 2x5 2.0mm

Pin No.	RS-232
1	---
2	---
3	RXD
4	---
5	TXD
6	---
7	---
8	---
9	GND
10	---

JP1: Console on M-9G45



CN14 : GPIO

Pin No.	Function
1	GPIO 0
2	GPIO 1
3	GPIO 2
4	GPIO 3
5	GPIO 4
6	GPIO 5
7	GPIO 6
8	GPIO 7
9	GPIO 8
10	GPIO 9
11	GPIO 10
12	GPIO 11
13	GPIO 12
14	GPIO 13
15	GPIO 14
16	N.C
17	GND
18	GND
19	VCC5V
20	VCC3V

CN14 : GPIO



Box Header 2x10 2.54mm