

ZETTLER DISPLAYS

SPECIFICATIONS FOR HDMI BOARD

CUSTOMER APPROVAL			
※ PART NO.: <u>ZEDH 50PIN A SERIES HDMI BOARD</u>			
APPROVAL		COMPANY CHOP	
CUSTOMER COMMENTS			

ZETTLER DISPLAYS ENGINEERING APPROVAL		
DESIGNED BY	CHECKED BY	APPROVED BY

Time	Version	Item	Remark
2019-10	V1.0	First issue	
2020-05	V1.1	Change picture	

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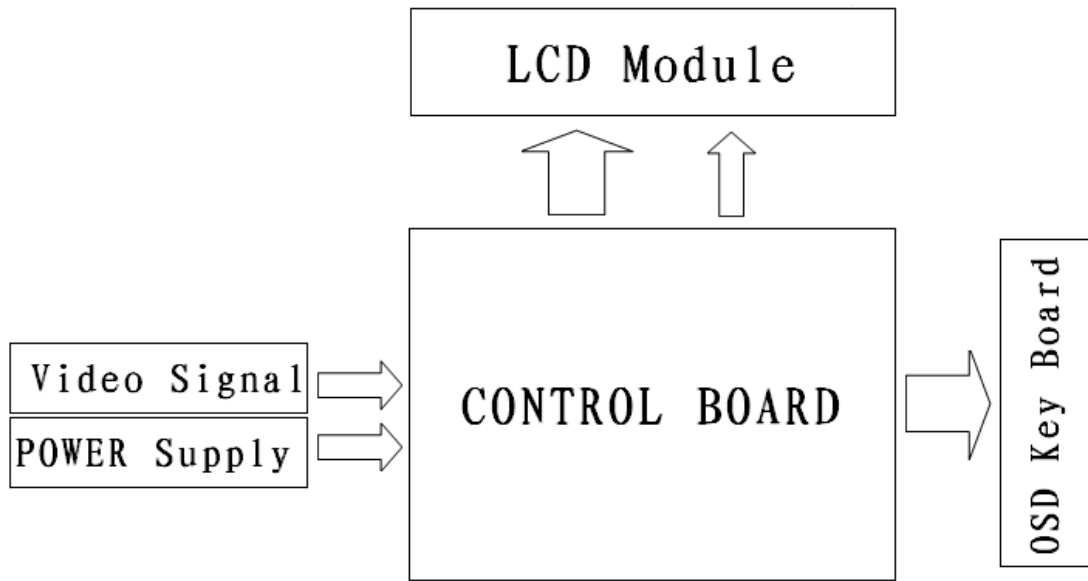
A. Overview:

ZEDH 50pin A series HDMI board is a LCD control board designed for digital TFT-LCD modules, it can receive 2 channel NTSC/PAL CVBS input and 1 channel HDMI input.

B. Features:

- Single power supply: +5V.
- Work Temperature: 0°C~+ 65 °C.
- Default Setting is 2AV +HDMI, No AUDIO.
- **HDMI Support resolutions: 720x576_50I, 720x576_50P, 720x480_60I, 720x480_60P, 1280x720_50P, 1280x720_60P, 1920x1080_50I , 1920x1080_60I and so on.**
- Support OSD Functions: BRI adjust, CNT adjust, SAT adjust, Panel Rotate, Panel Scale and so on.
- Support IR functions.
- Support Power on Display LOGO.
- Support SPI Panel.
- Unique display image manipulation.
- NO SYNC OFF Function: No sync Off Mode, include OFF/5S/10S, the default setting is OFF.
- Car Reverse Function(Optional):
 - i) Power on, Auto switch to AV2(can be changed) when Car Reverse Voltage give. And auto switch to original status when the voltage is disappear.
 - ii) Power off, Auto switch to AV2(can be changed) when Car Reverse Voltage give. And auto switch to Power Off Mode when the voltage is disappear.
 - iii) No SYNC off, Auto switch to AV2(can be changed) when Car Reverse Voltage give. And auto switch to original status when the voltage is disappear.
 - iv) No key effect when Car Reverse Function is enable.
 - v) The MAX Voltage of the Car Reverse Function is 24V.

C. Application diagram:

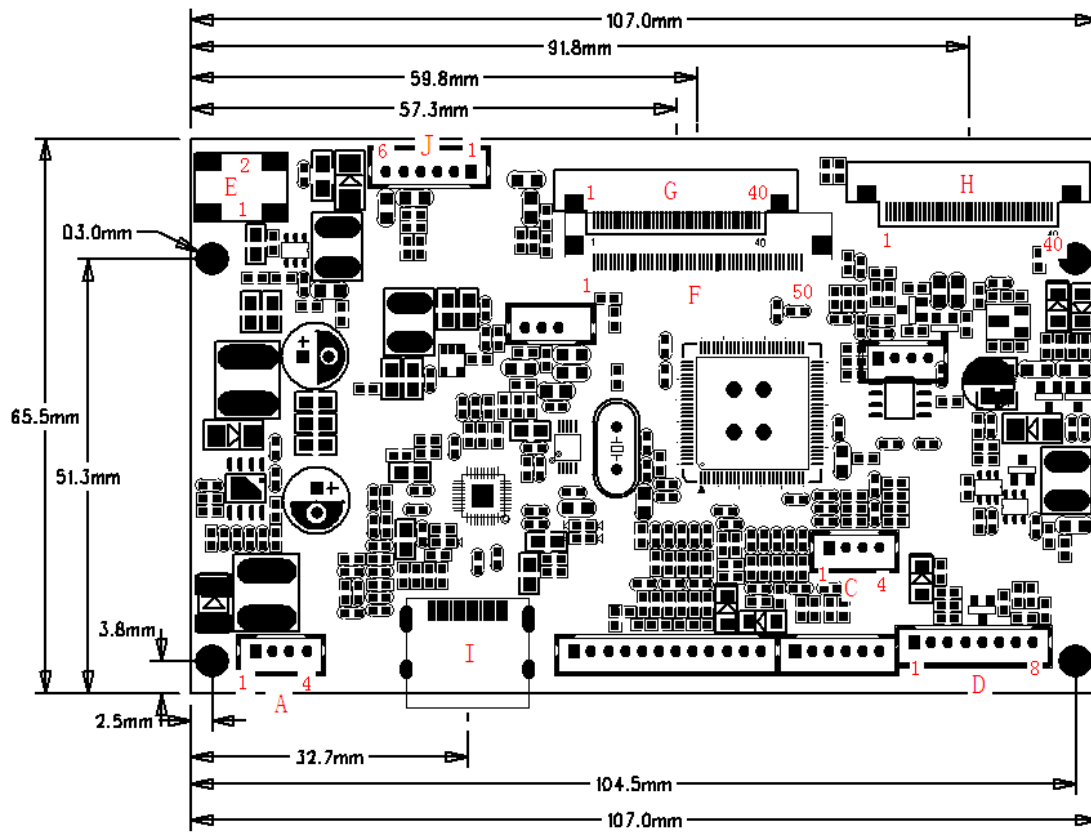


D. Power Consumption

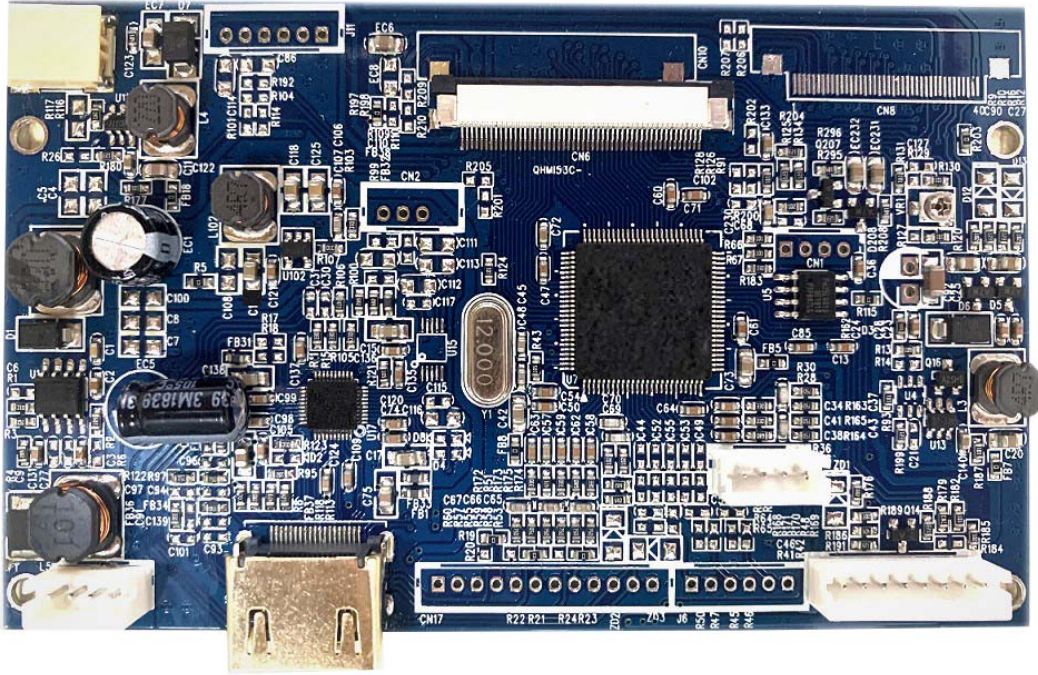
Condition	Current Consumption			Unit
	Min	Typ	Max	
V _{in} = 5V		TBD		mA

E. Outline Drawing

- **Size:** 107.0mm*65.5mm
- **Thickness:** <9mm, including PCB board.



● **Product Photo:**



F. Connector interface description:

Connector Number	Connector Description	Pin Number	Definition
A	POWER	1	5V
		2	5V
		3	GND
		4	GND
C	VIDEO IN	1	AV1
		2	GND
		3	AV2
		4	GND
D	FUNCTION	1	5V
		2	GND
		3	IR
		4	LED2
		5	LED1
		6	KEY2
		7	KEY1-Car Reverse
		8	GND
E	LED	1	HIGH
		2	LOW
I	HDMI		
J	CCFL/AUDIO CTL	1	5V
		2	5V
		3	GND
		4	GND
		5	PWM
		6	GPIO

F. Connector Define-F/G/H:

F---pitch: 0.5mm/50pin

pin	define	description
1	NC/LED+	No connection/LED+
2	NC/LED+	No connection/LED+
3	NC/LED-	No connection/LED-
4	NC/LED-	No connection/LED-
5	GND	Ground
6	VCOM	Vcom Input
7	VCC	Digital Power Voltage
8	MODE	Mode Control
9	DE	Data Enable
10	VS	V Sync input
11	HS	H Sync input
12	B7	Blue data input(MSB)
13	B6	Blue data input
14	B5	Blue data input
15	B4	Blue data input
16	B3	Blue data input
17	B2	Blue data input
18	B1	Blue data input
19	B0	Blue data input(LSB)
20	G7	Green data input(MSB)
21	G6	Green data input
22	G5	Green data input
23	G4	Green data input
24	G3	Green data input
25	G2	Green data input
26	G1	Green data input
27	G0	Green data input(LSB)
28	R7	Red data input(MSB)
29	R6	Red data input
30	R5	Red data input
31	R4	Red data input
32	R3	Red data input
33	R2	Red data input
34	R1	Red data input
35	R0	Red data input(LSB)
36	GND	Ground
37	DCLK	Sample Clock

38	GND	Ground
39	LR	Left/Right Control signal
40	UD	Up/Down Control signal
41	VGH	Positive Power For Scan Driver
42	VGL	Negative Power For Scan Driver
43	AVDD	Analog Power Voltage
44	RESET	Reset
45	NC	No connection
46	VCOM	Vcom Input
47	DITHB	Dithering Function
48	GND	Ground
49	NC	No connection
50	NC	No connection

G--- pitch: 0.5mm/40pin

pin	define	description
1	VLED	Power Voltage For LED
2	VLED	Power Voltage For LED
3	ADJ	Adjust LED Brightness
4	GLED	Ground For LED Circuit
5	GLED	Ground For LED Circuit
6	VCC	Power Voltage
7	VCC	Power Voltage
8	MODE	Mode Control
9	DE	Data Enable
10	VS	V Sync input
11	HS	H Sync input
12	GND	Ground
13	B5	Blue data input(MSB)
14	B4	Blue data input
15	B3	Blue data input
16	GND	Ground
17	B2	Blue data input
18	B1	Blue data input
19	B0	Blue data input(LSB)
20	GND	Ground
21	G5	Green data input(MSB)
22	G4	Green data input
23	G3	Green data input
24	GND	Ground
25	G2	Green data input
26	G1	Green data input

27	G0	Green data input(LSB)
28	GND	Ground
29	R5	Red data input(MSB)
30	R4	Red data input
31	R3	Red data input
32	GND	Ground
33	R2	Red data input
34	R1	Red data input
35	R0	Red data input(LSB)
36	GND	Ground
37	DCLK	Sample Clock
38	GND	Ground
39	LR	Left/Right Control signal
40	UD	Up/Down Control signal

H--- pitch: 0.5mm*40pin

pin	define	description
1	VCOM	Common Voltage
2	VDD	Power
3	VDD	Power
4	NC	Not Connect
5	RESET	Global Reset
6	STB	Standby Mode
7	GND	Ground
8	0-	Negative LVDS Data Signal
9	0+	Positive LVDS Data Signal
10	GND	Ground
11	1-	Negative LVDS Data Signal
12	1+	Positive LVDS Data Signal
13	GND	Ground
14	2-	Negative LVDS Data Signal
15	2+	Positive LVDS Data Signal
16	GND	Ground
17	CLK-	Negative LVDS Clock Signal
18	CLK+	Positive LVDS Clock Signal
19	GND	Ground
20	3-	Negative LVDS Data Signal
21	3+	Positive LVDS Data Signal
22	GND	Ground
23	NC	Not Connect
24	NC	Not Connect
25	GND	Ground
26	NC	Not Connect

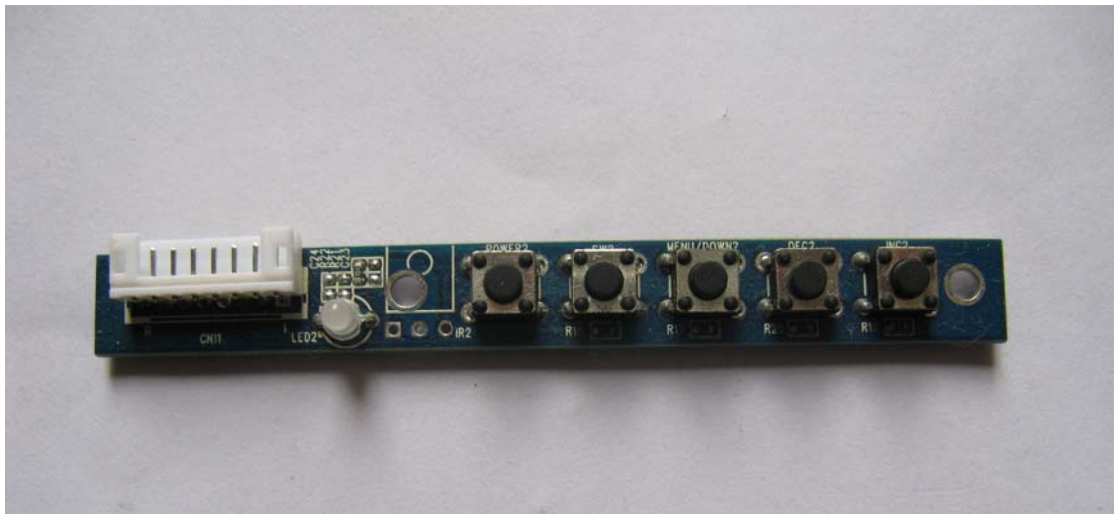
27	DIMO	CABC HW
28	SELB	6/8bit Mode
29	AVDD	Power
30	GND	Ground
31	LED-	LED Power
32	LED-	LED Power
33	LR	Left/Right Control
34	UD	Up/Down Control
35	VGL	Power
36	CABCEN1	CABC HW
37	CABCEN0	CABC HW
38	VGH	Power
39	LED+	LED Power
40	LED+	LED Power

G. REMOTE (NEC CODE) AND KEY BOARD

● REMOTE

Complete OSD Function and IR Function (NEC CODE) ,could be modified to meet different requirements of customers.

● KEY BOARD



POWER SOURCE MENU/DOWN MINUS PLUS

POWER : Power on/off.

SOURCE : Switch the input source.

MENU : OSD on/Page move.

MINUS : Minus value and save.

Manual Adjust Test Pattern when No SYNC Input at VIDEO Channel

PLUS : Plus value and save.

AUTO Loop Test Pattern when No SYNC Input at VIDEO Channel

NOTE: The all Keyboard keys could be defined any function you want.

H. P/N DESCRIPTION

ZEDH0700D6B

XXXX:	LCM series
XXXX:	LCM size
H:	HDMI input
D:	Driver board
ZE:	ZETTLER

Available P/N:

ZEDH0700D6A / ZEDH0700D6B / ZEDH0700D6J
ZEDH0900D6