



PRODUCT SPECIFICATION

KADI Model: **KD156FHD02**

CUSTOMER Model: **-**

Description: **HDMI TO eDP BOARD**

Version: **1.0**

KADI	PREPARED BY	CHECKED BY	APPROVED BY
SIGNATURE			
DATE	2025.03.14	2025.03.14	2025.03.14

CUSTOMER APPROVAL	SIGNATURE	DATE



Record of Revisions

[illegible]



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1. General Specifications

1.1 General Information

Item	Description
Input Source	HDMI 1.4a/Type-C 3.1
Support resolution	1920*1080
LCD interface	eDP (60Hz)
Voltage for LCD	3.3V
Power input	DC 5~24V
Operation Temperature	-20~70 °C
Storage Temperature	-30~80 °C
Users Control	Power On/Off OSD Menu Adjust+ Adjust- Exit

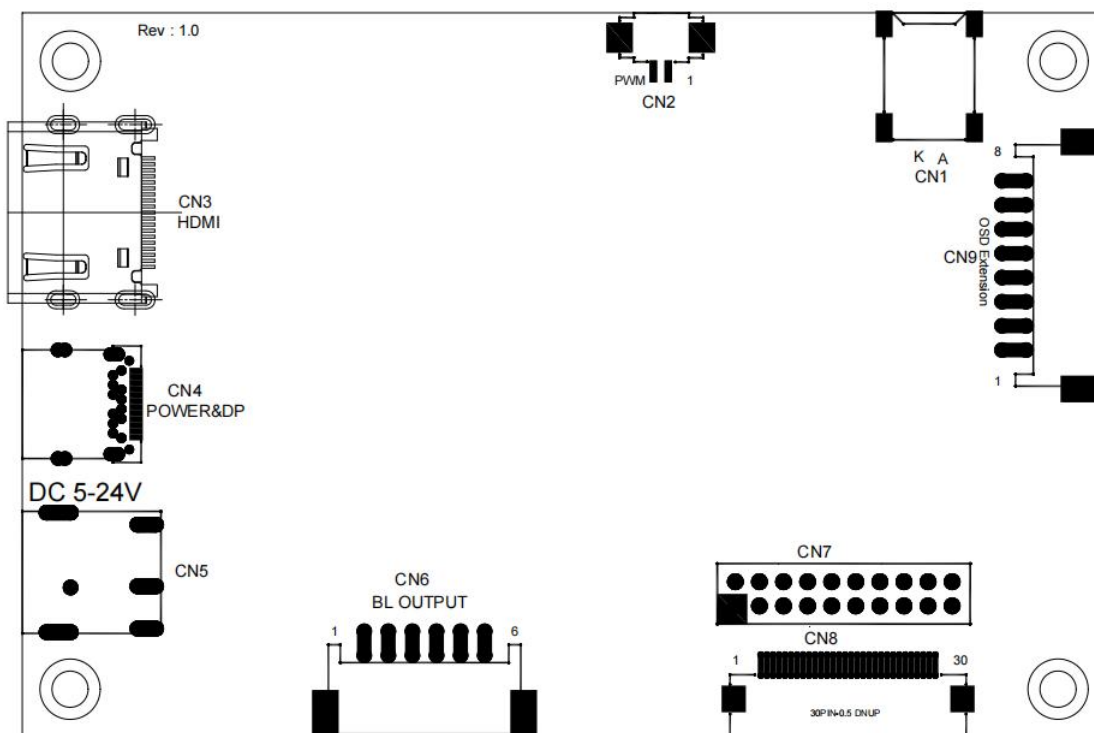
Note1: Requirements on environmental protection RoHS compliant.



2. Interface

2.1 PCB overview

Picture below shows the connectors exact placement and their descriptions.



2.2 Connector Description

Item	Type	Description
CN1	AK	BH3.5 (2PIN-3.5mm)
CN2	PWM	PWM Adjust (2PIN-1.25mm)
CN3	HDMI	HDMI 1.4a
CN4	Type-C	Type-C 3.1
CN5	Powr Jack	DC Jack (5.9mm OD/2.1mm ID)
CN6	BL Output	BL Output (6PIN-2.0mm)
CN7	eDP	eDP Interface (2*10PIN-2.0mm)
CN8	eDP	eDP Interface (30PIN-0.5mm)
CN9	External OSD Keyboard	Power/Menu/Exit/Up/Down (8PIN-2.0mm)



2.3 CN1 (AK) BH3.5 (2PIN-3.5mm)

Pin No.	Symbol	Description
1	LEDA	LED Anode
2	LEDK	LED Cathode

2.4 CN2 (PWM) (2PIN-1.25mm)

Pin No.	Symbol	Description
1	PWM	PWM Signals
2	GND	GND

2.5 CN3 (HDMI)

Pin No.	Symbol	Description
1	TMDS_Data 2+	TMDS differential signal 2+
2	TMDS_Data 2_S	Data2 shielding ground
3	TMDS_Data 2-	TMDS differential signal 2-
4	TMDS_Data 1+	MDS differential signal 1+
5	TMDS_Data 1_S	Data1 shielding ground
6	TMDS_Data 1-	TMDS differential signal 1-
7	TMDS_Data 0+	TMDS differential signal 0+
8	TMDS_Data 0_S	Data0 shielding ground
9	TMDS_Data 0-	TMDS differential signal 0-
10	TMDS_CLK+	TMDS differential signal Clock+
11	TMDS_CLK_S	Clock shielding ground
12	TMDS_CLK-	TMDS differential signal clock-
13	CEC	Electronic protocol CEC
14	NC	No connection
15	SCL	IIC clock Line
16	SDA	IIC data Line
17	DDC/CEC_GND	Data display channel



18	+5V	HDMI 5V
19	HOT_PLUG_DET	Hot plug detect

2.6 CN4 (Type-C 3.2)

Pin No.	Symbol	Description
A1	GND	Ground
A2	TX1+	SuperSpeed differential signal, positive
A3	TX1-	SuperSpeed differential signal, negative
A4	VBUS	VBUS Power;5V
A5	CC1	Configuration channel
A6	D+	NC
A7	D-	NC
A8	SBU1	Sideband use
A9	VBUS	VBUS Power;5V
A10	RX2-	SuperSpeed differential signal, positive
A11	RX2+	SuperSpeed differential signal, negative
A12	GND	Ground
B1	GND	Ground
B2	TX2+	SuperSpeed differential signal, positive
B3	TX2-	SuperSpeed differential signal, negative
B4	VBUS	VBUS Power;5V
B5	CC2	Configuration channel
B6	D+	NC
B7	D-	NC
B8	SBU2	Sideband use
B9	VBUS	VBUS Power;5V
B10	RX1-	SuperSpeed differential signal, positive
B11	RX1+	SuperSpeed differential signal, negative
B12	GND	Ground



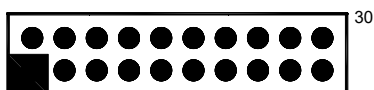
2.7 CN5(DC) 5.9mm OD/2.1mm ID

Pin No.	Symbol	Description
1	VDD	Power supply DC; 5~24V
2	GND	GND

2.8 CN6 (BL Output) 6PIN-2.0mm

Pin No.	Symbol	Description
1	GND	Ground
2	GND	Ground
3	PWM	PWM dimming control
4	BKL	Backlight on/off control
5	+12V	Power for LED backlight
6	+12V	Power for LED backlight

2.9 CN7 (eDP Interface) 2*10PIN-2.0mm



Pin No.	Symbol	Description
1	HPD	Hot plug detect output
2	VCC	Power Supply, 3.3V (typ.)
3	GND	Ground
4	GND	Ground
5	D0+	eDP RX channel 0 positive
6	D0-	eDP RX channel 0 negative
7	D1+	eDP RX channel 1 positive
8	D1-	eDP RX channel 1 negative
9	D2+	eDP RX channel 2 positive
10	D2-	eDP RX channel 2 negative



11	D3+	eDP RX channel 3 positive
12	D3-	eDP RX channel 3 negative
13	GND	Ground
14	GND	Ground
15	CHP	eDP AUX CH positive
16	CHN	eDP AUX CH negative
17	GND	Ground
18	GND	Ground
19	VCC	Power Supply, 3.3V (typ.)
20	VCC	Power Supply, 3.3V (typ.)

2.10 CN8 (LVDS Interface) 2*15PIN-2.0mm

Pin No.	Symbol	Description
1	NC	No Connection
2	GND	Ground
3	L1P	eDP RX channel 1 positive
4	L1N	eDP RX channel 1 negative
5	GND	Ground
6	X0P	eDP RX channel 0 positive
7	X0N	eDP RX channel 0 negative
8	GND	Ground
9	CHP	eDP AUX CH positive
10	CHN	eDP AUX CH negative
11	GND	Ground
12	VCC	Power Supply, 3.3V (typ.)
13	VCC	Power Supply, 3.3V (typ.)
14	NC	No Connection
15	GND	Ground
16	GND	Ground
17	HPD	Hot plug detect output



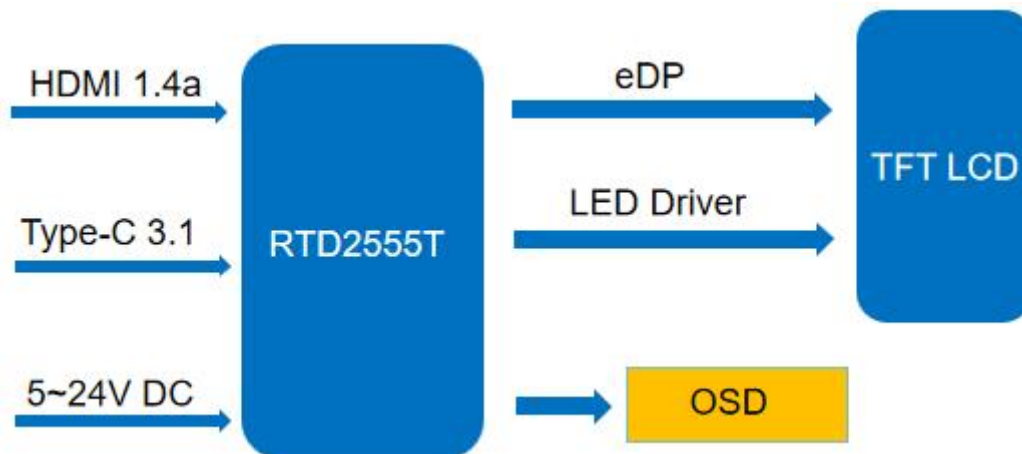
18	GND	Ground
19	GND	Ground
20	GND	Ground
21	GND	Ground
22	EN	LED enable pin(+3.3V Output)
23	ADJ	Adjust Backlight
24	NC	No Connection
25	NC	No Connection
26	BL_PWR	LED Power Supply 5V-24V
27	BL_PWR	LED Power Supply 5V-24V
28	BL_PWR	LED Power Supply 5V-24V
29	BL_PWR	LED Power Supply 5V-24V
30	NC	No Connection

2.11 CN9 (External OSD keyboard) 8PIN-2.0mm

Pin No.	Symbol	Description
1	DOWN	Page down
2	UP	Page up
3	EXIT	Exit
4	MENU	Menu
5	PWR	Power on/off
6	LED_EN	LED Enable; Output signal 3.3V
7	GND	GND
8	Keyboard VDD	Keyboard VDD, Output 3.3V



3. Function Block



4. Mechanical Drawing

