



PRODUCT SPECIFICATION

KADI Model: **KD156FHD01**

CUSTOMER Model: **-**

Description: **DP BOARD**

Version: **1.0**

KADI	PREPARED BY	CHECKED BY	APPROVED BY
SIGNATURE			
DATE	2025.02.10	2025.02.10	2025.02.10

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/DP1.1/VGA
Support resolution	1024*600、1280*800、1920*1080、1920*1200
LCD interface	LVDS (60Hz)
Voltage for LCD	3.3V, 5V, 12V
Power input	DC 12V
Operation Temperature	-20~70 °C
Storage Temperature	-30~80 °C
Users Control	Power On/Off OSD Menu Adjust+ Adjust- Exit

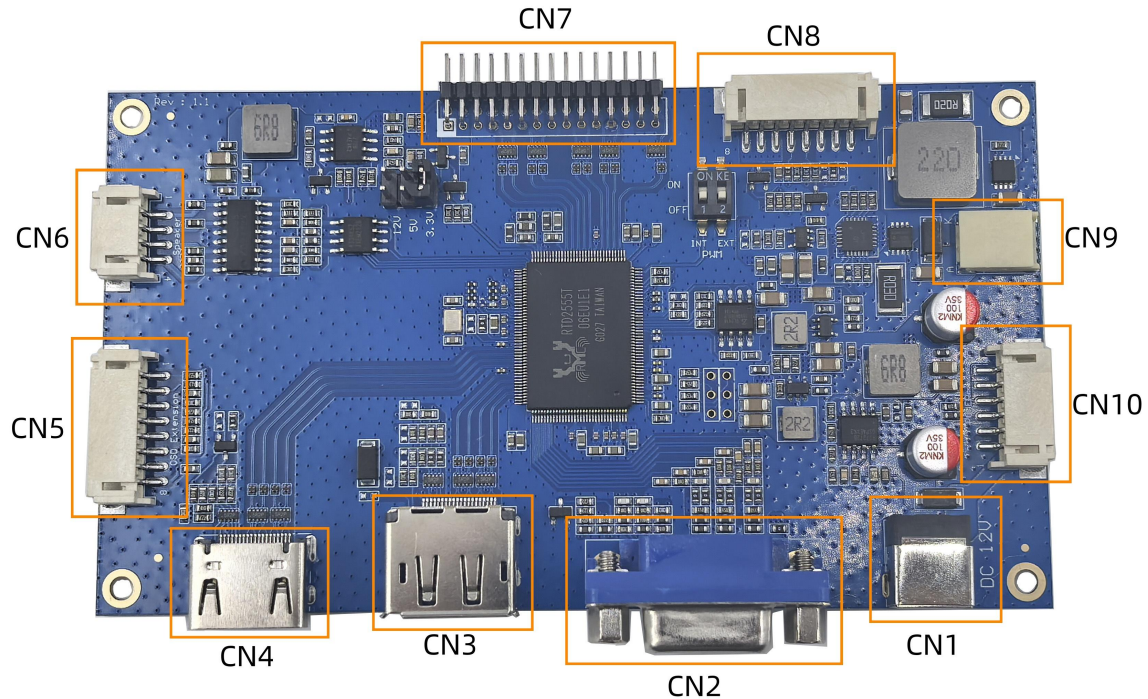
Note1: Requirements on environmental protection RoHS compliant.



2. Interface

2.1 PCB overview

Picture below shows the connectors exact placement and their descriptions.



2.2 Connector Description

Item	Type	Description
CN1	Powr Jack	DC Jack (5.9mm OD/2.1mm ID)
CN2	VGA	VGA
CN3	DP	DP 1.1
CN4	HDMI	HDMI 1.4
CN5	External OSD Keyboard	Power/Menu/Exit/Up/Down (8PIN-2.0mm)
CN6	Speaker	2.9W (4PIN-2.0mm)
CN7	LVDS	LVDS Interface (2*15PIN-2.0mm)
CN8	BL Output	BL Output (8PIN-2.0mm)
CN9	AK	BH3.5 (2PIN-3.5mm)
CN10	Power Input	Power Input (6PIN-2.0mm)



2.3 CN1 (DC) 5.9mm OD/2.1mm ID

Pin No.	Symbol	Description
1	VDD	Power supply DC;12V
2	GND	GND

2.4 CN2 (VGA) 15P

Pin No.	Symbol	Description
1	RED	Red component signal
2	GREEN	Green component signal
3	BLUE	Blue component signal
4	N/C	No connection
5	GND	Ground
6	GND R	Ground
7	GND G	Ground
8	GND B	Ground
9	+5V (NC)	No connection
10	GND	Ground
11	N/C	No connection
12	SDA	Serial data signal
13	H SYNC	Horizontal synchronization
14	V SYNC	Vertical Synchronization
15	SCL	Serial clock signal

2.5 CN3 (DP)

Pin No.	Symbol	Description
1	ML_Lane0+	Differential signal 0+
2	GND	Ground
3	ML_Lane0-	Differential signal 0-
4	ML_Lane1+	Differential signal 1+
5	GND	Ground



6	ML_Lane1-	Differential signal 1-
7	ML_Lane2+	Differential signal 2+
8	GND	Ground
9	ML_Lane2-	Differential signal 2-
10	ML_Lane3+	Differential signal 3+
11	GND	Ground
12	ML_Lane3-	Differential signal 3-
13	GND	Ground
14	GND	Ground/NC
15	AUX CH+	Auxiliary Channel (positive)
16	GND	DP CABLE
17	AUX CH-	Auxiliary Channel (negative)
18	Hot Plug	Hot Plug Detect
19	Return	Power return for the +3.3V power pin
20	DP_PWR	Power supply pin

2.6 CN4 (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	Datal 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	Clo6ck 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

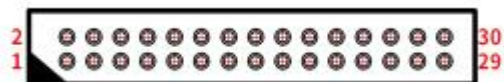
2.7 CN5 (External OSD keyboard) 8PIN-2.0mm

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	Ground
8	Keyboard VDD	Keyboard VDD, Output 3.3V

2.8 CN6 (Speaker) 4PIN-2.0mm

Pin No.	Symbol	Description
1	L+	Left channel+
2	L-	Left channel-
3	R-	Right channel-
4	R+	Right channel+

2.9 CN7 (LVDS Interface) 2*15PIN-2.0mm



Pin No.	Symbol	Description
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SHENZHEN KADI DISPLAY

1	VCC	Power for panel
2	VCC	Power for panel
3	VCC	Power for panel
4	RESET	Reset for LCD
5	GND	Ground
6	NC	No connection
7	O0-	LVDS ODD 0- Signal
8	O0+	LVDS ODD 0+ Signal
9	O1-	LVDS ODD 1- Signal
10	O1+	LVDS ODD 1+ Signal
11	O2-	LVDS ODD 2- Signal
12	O2+	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	Ground
15	EC-	LVDS EVEN Clock- Signal
16	EC+	LVDS EVEN Clock+ Signal
17	O3-	LVDS ODD 3- Signal
18	O3+	LVDS ODD 3+ Signal
19	E0-	LVDS EVEN 0- Signal
20	E0+	LVDS EVEN 0+ Signal
21	E1-	LVDS EVEN 1- Signal
22	E1+	LVDS EVEN 1+ Signal
23	E2-	LVDS EVEN 2- Signal
24	E2+	LVDS EVEN 2+ Signal
25	GND	Ground
26	GND	Ground
27	OC-	LVDS ODD Clock- Signal
28	OC+	LVDS ODD Clock+ Signal
29	E3-	LVDS EVEN 3- Signal
30	E3+	LVDS EVEN 3+ Signal



2.10 CN8 (BL Output) 8PIN-2.0mm

Pin No.	Symbol	Description
1	GND	Ground
2	GND	Ground
3	GND	Ground
4	PWM	PWM dimming control
5	BKL	Backlight on/off control
6	+12V	Power for LED backlight
7	+12V	Power for LED backlight
8	+12V	Power for LED backlight

2.11 CN9 (AK) 2PIN-3.5mm

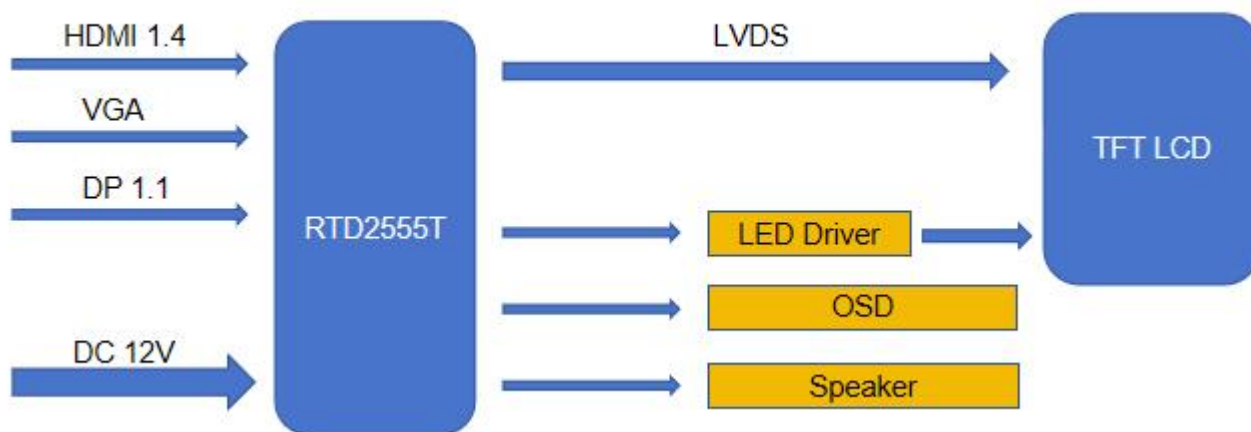
Pin No.	Symbol	Description
1	LED A	Positive backlight
2	LED K	Negative backlight

2.12 CN10 (Power Input) 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 IN
6	+12V	Power



3. Function Block



4. Mechanical Drawing

