

MDT1010AC-HDMI	1024 x 600	HDMI Interface	TFT Module
Specification			
Version: 1		Date: 10/06/2023	
Revision			
1	08/06/2023	First issue	

Display Features			
Display Size	10.10"		
Resolution	1024 x 600		
Orientation	Landscape		
Appearance	RGB		
Logic Voltage	3.3V		
Interface	HDMI		
Brightness	300 cd/m ²		
Touchscreen	CTP		
Module Size	235.00 x 143.00 x 14.70 mm		
Operating Temperature	-0°C ~ +60°C	Created By	Checked By
Pinout	---	TSB	WE
Pitch	---	Box Quantity	Weight / Display
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* - For full design functionality, please use this specification in conjunction with the RTD2281 display driver specification.(Provided Separately)

Display Accessories	
Part Number	Description

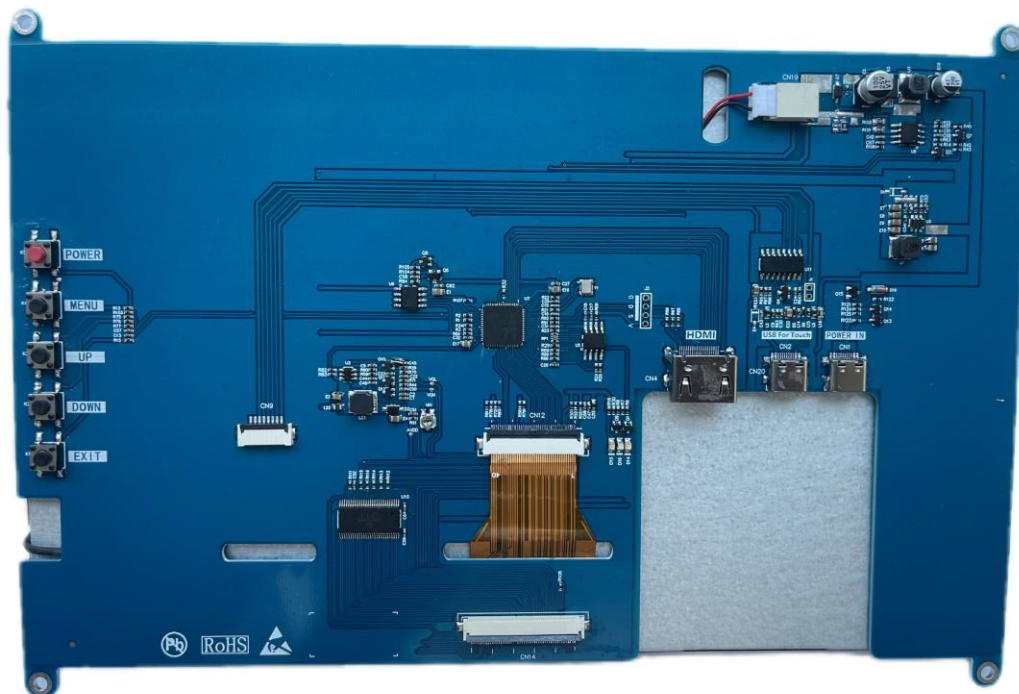
Optional Variants	
Appearances	Voltage



1. GENERAL DESCRIPTION

MDT1010AC-HDMI is a 10.1inch LCD display driver board; Supports HDMI input; Support for highlighted backlight and 8-wire capacitive touch panel.

2. FUNCTION LAYOUT



(The color of actual item may vary and the image is only for reference.)

3. FEATURES

Below you will find the detailed features.

MAIN CHIPSET	RTD2281		
OSD LANGUAGE	Chinese, English, (French, Spanish, Italian, German, Portuguese, Dutch, Korean) (Option)		
VIDEO INPUT	PC-RGB	Format	Up to 1920*1080@50HZ
		Color	16bit, 24bit, 32bit
	DVI	Format	Up to 1920*1080@50HZ
		Operating Speed	155MHz
POWER TO PANEL	3.3V		
Management	Standby Power Consumption < 0.2W (Board Only)		
KEY FUNCTIONS	AUTO, MENU, LEFT, RIGHT, EXIT, POWER		

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4. INTERFACE DEFINITION

4.1 DC IN CONNECTOR CN1 (TYPE-C)

NO	SYMBOL	DESCRIPTION
CN1		
A4, A9, B4, B9	5V	+5V DC Power supply
A1, A12, B1, B12	GND	Ground
OTHER	NC	No connection

4.2 USB IN CONNECTOR CN2/CN20 (TYPE-C /MICRO)

This part is optional (This socket is a computer interface of touch controlled)

NO.		SYMBOL	DESCRIPTION
CN2	CN20		
A4, A9, B4, B9	1	5V	+5V power drain from host USB port
A7, B7	2	D-	USB bus signal
A6, B6	3	D+	USB bus signal
A1, A12, B1, B12	5	GND	signal ground
OTHER	4	NC	No connection

4.3 HDMI IN CONNECTOR CN4 (HDMI)

NO.	SYMBOL	DESCRIPTION
1-19	HDMI-19	HDMI standard interface

4. 4 CAPACITIVE TOUCH SCREEN CONNECTOR CN9 (8P IN1. 0)

This part is optional

(Connect USB interface to computer, touch control can be effective.)

NO.	SYMBOL	DESCRIPTION
1, 8	DGND	Signal ground
2	NC	No connection
3	VK3. 3	+3.3V power supply for capacitor screen
4	CTK-SCL	Capacitive touch panel SCL
5	CTK-SDA	Capacitive touch panel SDA
6	CTK-INT	Capacitive touch panel INT
7	CTK-RST	Capacitive touch panel RST

4. 5 BACKLIGHT CONNECTOR CN19 (BH3. 5-2P)

This part is optional

NO.	SYMBOL	DESCRIPTION
1	LED+	Power for LED backlight (Anode)
2	LED-	Power for LED backlight (Cathode)

4. 6 KEY K1, K2, K3, K4, K5 (SMD4J6*6)

This part is optional

NO.	SYMBOL	DESCRIPTION
K1	EXIT	EXIT Key
K2	DOWN	DOWN Key
K3	UP	UP Key
K4	MENU	MENU Key
K5	POWER	POWER Key



4.7 LCD PANEL INTERFACE (CN14 (FPC-50PIN-0.5))

NO.	SYMBOL	I/O	Function
1	LED+	P	Power for LED backlight (Anode)
2	LED+	P	Power for LED backlight (Anode)
3	LED-	P	Power for LED backlight (Cathode)
4	LED-	P	Power for LED backlight (Cathode)
5	GND	P	Power ground
6	VCOM	I	Common voltage
7	DVDD	P	Power for Panel
8	MODE	I	DE/SYNC mode select
9	DE	I	Data Input Enable
10	VS	I	Vertical Sync Input
11	HS	I	Horizontal Sync Input
12	B7	I	Blue data (MSB)
13	B6	I	Blue data
14	B5	I	Blue data
15	B4	I	Blue data
16	B3	I	Blue data
17	B2	I	Blue data
18	B1	I	Blue data
19	B0	I	Blue data (LSB)
20	G7	I	Green data (MSB)
21	G6	I	Green data
22	G5	I	Green data
23	G4	I	Green data
24	G3	I	Green data
25	G2	I	Green data
26	G1	I	Green data
27	G0	I	Green data (LSB)
28	R7	I	Red data (MSB)
29	R6	I	Red data
30	R5	I	Red data
31	R4	I	Red data
32	R3	I	Red data
33	R2	I	Red data
34	R1	I	Red data
35	R0	I	Red data (LSB)
36	GND	P	Power Ground



37	DCLK	I	Sample clock
38	GND	P	Power Ground
39	L/R	I	Left /right selection
40	U/D	I	Up/down selection
41	VGH	P	Gate ON Voltage
42	VGL	p	Gate OFF Voltage
43	AVDD	P	Power for Analog circuit
44	RESET	I	Global reset pin.
45	NC	-	No connection
46	VCOM	I	Common Voltage
47	DITHB	I	Dithering function
48	GND	P	Power Ground
49	NC	-	No connection
50	NC	-	No connection

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4.8 LCD PANEL INTERFACE CN12 (FPC-40P IN-0.5)

NO.	SYMBOL	I/O	Function
1	VCOM	I	Common voltage
2,3	DVDD	P	Power for Panel
4	NC	-	No connection
5	RESET	I	Global reset pin.
6	STBYB	I	Standby mode Normally pulled high STBYB=1normal operation STBYB=0 timing controller source Driver will turn off all output are High-Z
7	GND	P	Power Ground
8	RXE0-	I	LVDS EVEN 0- Signal
9	RXE0+	I	LVDS EVEN 0+ Signal
10	GND	P	Power Ground
11	RXE1-	I	LVDS EVEN 1- Signal
12	RXE1+	I	LVDS EVEN 1+ Signal
13	GND	P	Power Ground
14	RXE2-	I	LVDS EVEN 2- Signal
15	RXE2+	I	LVDS EVEN 2+Signal

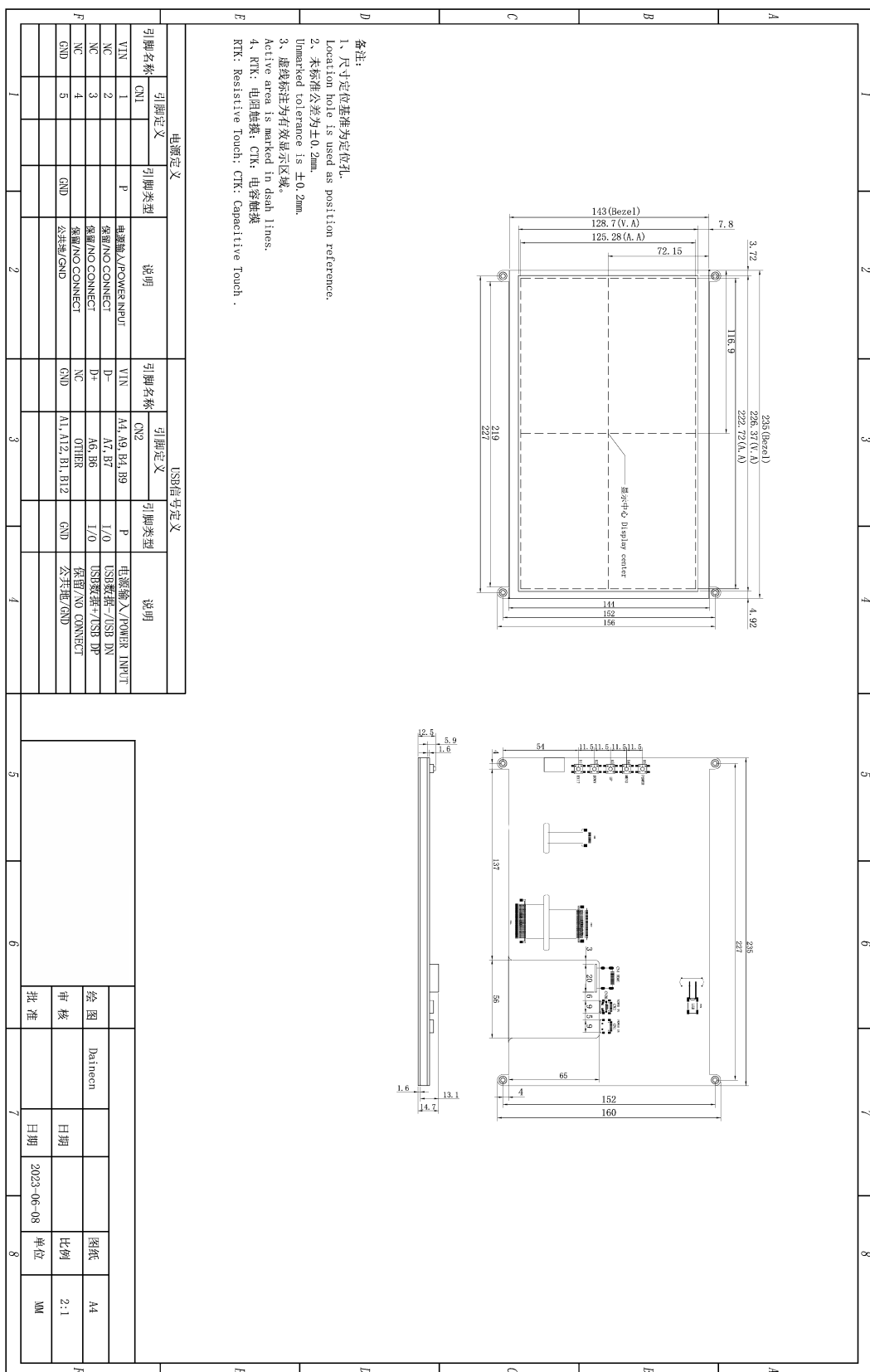


16	GND	P	Power Ground
17	RXEC-	I	LVDS EVEN Clock- Signal
18	RXEC+	I	LVDS EVEN Clock+ Signal
19	GND	P	Power Ground
20	RXE3-	I	LVDS EVEN 3- Signal
21	RXE3+	I	LVDS EVEN 3+ Signal
22	GND	P	Power Ground
23,24	NC	-	No connection
25	GND	P	Power Ground
26	NC	-	No connection
27	DIMO	O	Backlight CABC controller signal output
28	SELB	I	6bit/8bit mode select
29	AVDD	P	Power for Analog circuit
30	GND	P	Power Ground
31,32	LED-	P	Power for LED backlight (Cathode)
33	L/R	I	Left /right selection
34	U/D	I	Up/down selection
35	VGL	P	Gate OFF Voltage
36	CABCEN1	I	CABC H/W enable
37	CABCEN0	I	CABC H/W enable
38	VGH	P	Gale ON Voltage
39,40	LED+	P	Power for LED backlight (Anode)

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5. CONTROLLER DIMENSIONS



6. OPERATION REQUIREMENT

- (1) Do not pressed and distorted.
- (2) Keep away from static and water.
- (3) Relative humidity : $\leq 80\%$
- (4) Storage temperature: $-20\sim+60^{\circ}\text{C}$
- (5) Operation temperature: $-0\sim+60^{\circ}\text{C}$

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DISPLAYS

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