

MDT0700BC-HDMI	1024 x 600	HDMI Interface	TFT Module
Specification			
Version: 1		Date: 12/08/2024	
Revision			
1	10/08/2024	First issue	

Display Features					
Display Size	7.00"				
Resolution	1024 x 600				
Orientation	Landscape				
Appearance	RGB				
Logic Voltage	3.3V				
Interface	HDMI				
Brightness	400 cd/m ²				
Touchscreen	CTP				
Module Size	164.90 x 122.96 x 16.20 mm			Created By	Checked By
Operating Temperature	-20°C ~ +60°C	TSB	WE		
Pinout	---	Box Quantity	Weight / Display		
Pitch	---	---	---		

DESIGN • MANUFACTURE • SUPPLY

Display Accessories	
Part Number	Description

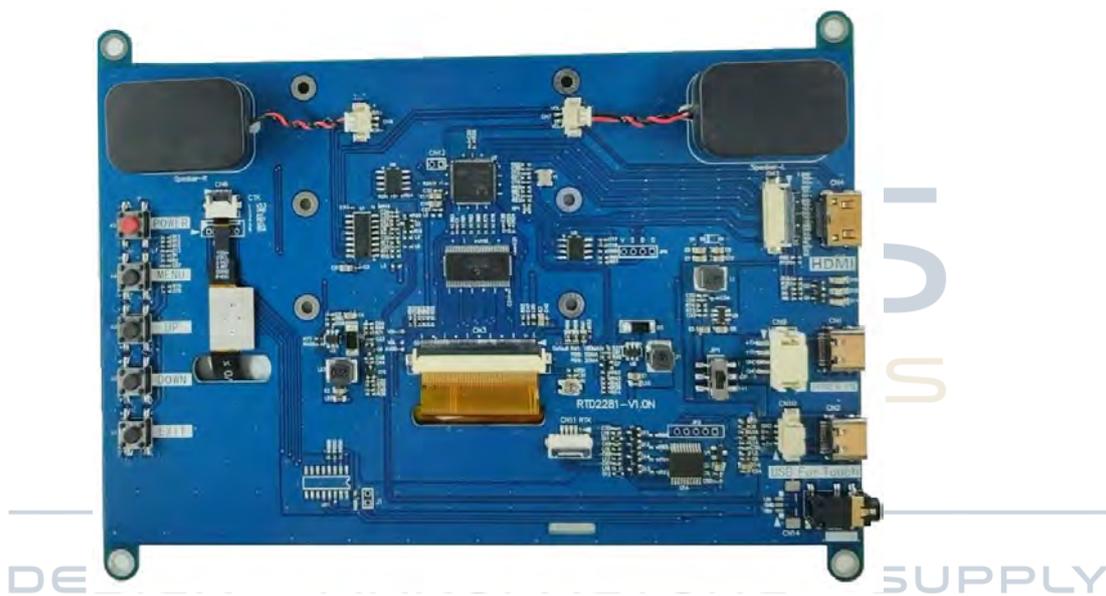
Optional Variants	
Appearances	Voltage



1. GENERAL DESCRIPTION

MDT0700BC-HDMI is a 7.0 inch LCD display driver board; supports HDMI input; supports analog audio signal input and speaker output; Support 4-wire resistive touch panel or 6-wire capacitive touch panel. (This function can only be selected from two options)

2. FUNCTION LAYOUT



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

3. FEATURES

MAIN CHIPSET	RTD2281CL		
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
	HDMI	Format	Up to 1920*1080@50HZ
		Operating Speed	155MHz
AUDIO OUTPUT	Frequency response	217Hz-20KHz @±3dB(1KHz 0dB reference signal)	
	Output power	2×1.2W(4Ω) THD+N<10% 1KHz (Audio Input: 0.5V _{RMS})	
TOUCH	Interface	USB	
	Touch Panel	4-wire resistance touch panel	
		6-wire capacitive touch panel	
POWER TO PANEL	3.3V		
Management	Standby Power Consumption < 0.2W(Board Only)		
KEY FUNCTIONS	MENU, UP, DOWN, EXIT, POWER		



4. INTERFACE DEFINITION

4.1 DC IN CONNECTOR CN1/CN9(TYPE-C/4PIN2.0)

NO.		SYMBOL	DESCRIPTION
CN1	CN9		
A4,A9,B4,B9	1,2	5V	+5V DC Power supply
A1,A12,B1,B12	3,4	GND	Ground
OTHER		NC	No connection

4.2 USB IN CONNECTOR CN2/CN10(TYPE-C /4PIN1.25)

This part is optional

(This socket is a USB interface for the touch)

NO.		SYMBOL	DESCRIPTION
CN2	CN10		
A4,A9,B4,B9	1	5V	+5V power from host USB
A7,B7	2	D-	USB bus signal
A6,B6	3	D+	USB bus signal
A1,A12,B1,B12	4	GND	signal ground
OTHER		NC	No connection

4.3 HDMI IN CONNECTOR CN4/CN13(MINI-HDMI/FPC20PIN-0.5)

NO.	SYMBOL	DESCRIPTION
CN4		
1-19	HDMI-19	MINI HDMI standard interface



NO.	SYMBOL	DESCRIPTION
CN13		
1	GND	Signal ground
2	HDMI-DATA2-	HDMI DATA2-
3	HDMI-DATA2+	HDMI DATA2+
4	GND	Signal ground
5	HDMI-DATA1-	HDMI DATA1-
6	HDMI-DATA1+	HDMI DATA1+
7	GND	Signal ground
8	HDMI-DATA0-	HDMI DATA0-
9	HDMI-DATA0+	HDMI DATA0+
10	GND	Signal ground
11	HDMI-CLK+	HDMI CLOCK+
12	HDMI-CLK-	HDMI CLOCK-
13	CEC	HDMI CEC
14	RESERVED	RESERVED
15	HDMI-SCL	HDMI IIC-SCL
16	HDMI-SDA	HDMI IIC-SDA
17	GND	Signal ground
18	HDMI-5V	HDMI-5V
19	HDMI-HPD	HDMI-HPD
20	NC	NC

DESIGN • MANUFACTURE • SUPPLY

4.4 SPEAKER INTERFACE CN7/CN8(2PIN1.25)

CN5/CN14. This part is optional, Derived from CN5/CN14.

NO.		SYMBOL		DESCRIPTION
CN7	CN8			
1	1	VOL+	VOR+	Positive audio channel out
2	2	VOL-	VOR-	Negative audio channel out



4.5 CAPACITIVE TOUCH PANEL CONNECTOR N6(FPC6PIN0.5)

This part is optional.

Connect the USB interface to a computer to enable touch control.

NO.		SYMBOL	DESCRIPTION
CN6	CN15		
1		V3.3	+3.3V power output
2		GND	signal ground
3		INT	Capacitive touch panel INT
4		RST	Capacitive touch panel SDA
5		SCL	Capacitive touch panel SDA
6		SDA	Capacitive touch panel SDA

4.6 RESISTANCE TOUCH PANEL CONNECTOR CN11(FPC4PIN1.0)

This part is optional

NO.		SYMBOL	DESCRIPTION
CN11			
1		Y+	Connect to 4 Wire touch panel Y+
2		X+	Connect to 4 Wire touch panel X+
3		Y-	Connect to 4 Wire touch panel Y-
4		X-	Connect to 4 Wire touch panel X-

4.7 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



4.8 LCD PANEL INTERFACE CN3(FPC-50PIN-0.5)

NO.	SYMBOL	I/O	Function
1	LED+	P	LED backlight Anode
2	LED+	P	LED backlight Anode
3	LED-	P	LED backlight Cathode
4	LED-	P	LED backlight Cathode
5	GND	P	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
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
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



36	GND	P	Ground
37	DCLK	I	Sample clock
38	GND	P	Ground
39	L/R	I	Left /right selection
40	U/D	I	Up/down selection
41	VGH	P	Gale 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	Ground
49	NC	-	No connection
50	NC	-	No connection

4.9 PC AUDIO INTERFACE (CN5/CN14 (PJ342-6P/3PIN1.25))

This part is optional

NO.		SYMBOL	DESCRIPTION
CN14	CN5		
1	3	PC-RIN	Right vocal tract (
2	2	GND	Ground
3	4	PC-LIN	Left vocal tract
	1, 5, 6	NC	No connection

OPERATION REQUIREMENT

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



