BTP-LC-RTD2525AR
Specification Sheet

(LCD controller)

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APPROVED BY	NOTE

ISSUED BY_____ CHECKED BY_____ APPROVED BY_____

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Version Record

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1. Performance Overview Performance Introduce

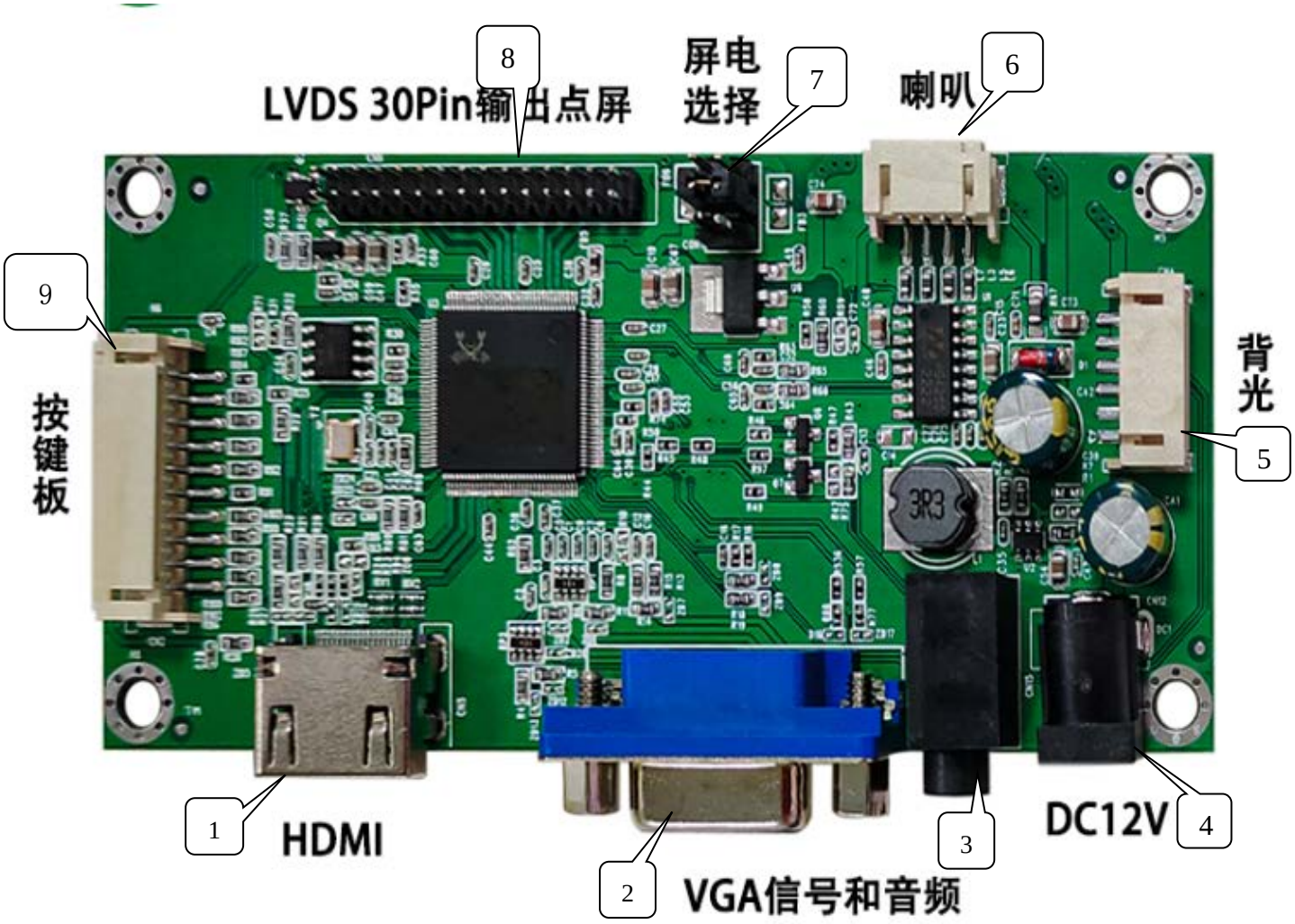
This product is an LCD high-definition monitor display solution that utilizes Realtek's single-chip monitor processing IC. It delivers excellent image quality and supports HDMI, VGA, composite video, and LVDS signal output interfaces, making it suitable for LCD display devices of various sizes.

- Analog audio amplifier: Maximum output power – 2×3 W (4 Ω)
- Input signals: VGA, HDMI (1.3)
- Supports 1080P screen resolution and LVDS signal output
- Multiple OSD menu languages

2. Main Technical Parameters Main Technical Parameter

Video in	VGA	480i、480p、576i、576p、720p、1080i、1080p
	HDMI	480i、480p、576i、576p、720p、1080i、1080p
	Audio frequency response	±3dB
Sound	Left–Right Channel Separation Degree	70dB
	Distortion(THD)	1.5～2%
	Noise-signal ratio(S/N)	80 dB
Power amplifier	2 *3W（4Ω）	Low power consumption; standby power consumption <1 W
Source	Input voltage	12V+/-10%
	Standby current	<10MA
OSDlanguage	Chinese, English, German, French, Russian, Italian, Spanish, and other optional languages	
Button Functions	POWER/MENU/SOURCE/ LEFT/RIGHT	

3. Exterior Images Appearance



4. Main Interface Definitions Main interface definitions

Order number	Description	Order number	Description
1	HDMI input interface	2	VGA input interface
3	Micimport	4	Power supply +12V power supply
5	Backlight control	6	Speaker interface
7	Screen voltage selection (3.3 V, 5.0 V, 12 V) – Screen Voltage Select		
8	LVDS display interface	9	Keyboard interface – Key Input

5. Backlight Interface Backlight Control

Pin Definition Guide:

Foot position number – Pin No.	Namename	Explain
1	GND	The earth
2	GND	The earth
3	ADJ	Backlight dimming
4	ON/OFF	POWERswitch
5	VCC	12V power supply
6	VCC	12V power supply

6. Speaker Audio Output Interface

Pin Definition Guide:

Foot position number – Pin No.	Namename	Explain
1	ROUT+	Right channel output +
2	ROUT-	Right channel output-
3	LOUT-	Left channel output-
4	LOUT+	Left channel output +

7. Screen Power Supply Voltage Selection Interface Screen Power Supply Voltage Selector

Pin Definition Guide:

Foot position number – Pin No.	Namename	Explain
1 Foot	12V	12V power supply interface
2 Foot	5V	5V power supply interface
3 Foot	3.3V	3.3 V power supply interface
4 Foot	Screen Power Supply	Screen Power Supply Input Interface
5 Foot	Screen Power Supply	Display Power Supply Input Interface
6 Foot	Screen Power Supply	Display Power Supply Input Interface

8. 8-Bit LVDS Output Interface

Pin Definition Guide:

Foot position number – Pin no.	Namename	Explain
1	VCC	Display Power Supply
2	VCC	Display Power Supply
3	VCC	Display Power Supply
4	GND	The earth
5	GND	The earth
6	GND	The earth
7	LVA0-	LVDS twisted pair – Terminal 0 (Negative)
8	LVA0+	LVDS twisted pair – Terminal 0 (Positive)
9	LVA1-	LVDS twisted pair – Terminal 1 (Negative)
10	LVA1+	LVDS dual-pair, Pin 1 (Positive)
11	LVA2-	LVDS twisted pair – Terminal 2 (Negative)
12	LVA2+	LVDS twisted pair, Terminal 2 (Positive)
13	GND	The earth
14	GND	The earth
15	LVACK-	LVDS dual-line clock negative terminal
16	LVACK+	LVDS dual-line clock – Positive terminal
17	LVA3-	LVDS dual-pair, negative terminal 3
18	LVA3+	LVDS twisted-pair connection – Terminal 3
19	LVB0-	LVDS odd-line pair to ground (0)
20	LVB0+	LVDS odd-line pair to 0 positive terminal
21	LVB1-	LVDS odd-line pair – Terminal 1 (Negative)
22	LVB1+	LVDS odd-line pair – Terminal 1 (Positive)
23	LVB2-	LVDS odd-line pair 2 (negative terminal)
24	LVB2+	LVDS odd-line pair 2 (positive terminal)
25	GND	The earth
26	GND	The earth
27	LVBCK-	LVDS odd-line clock negative terminal
28	LVBCK+	LVDS odd-line clock input (positive terminal)
29	LVB3-	LVDS odd-line pair – Terminal 3 (Negative)
30	LVB3+	LVDS odd-line pair to pin 3 (positive)

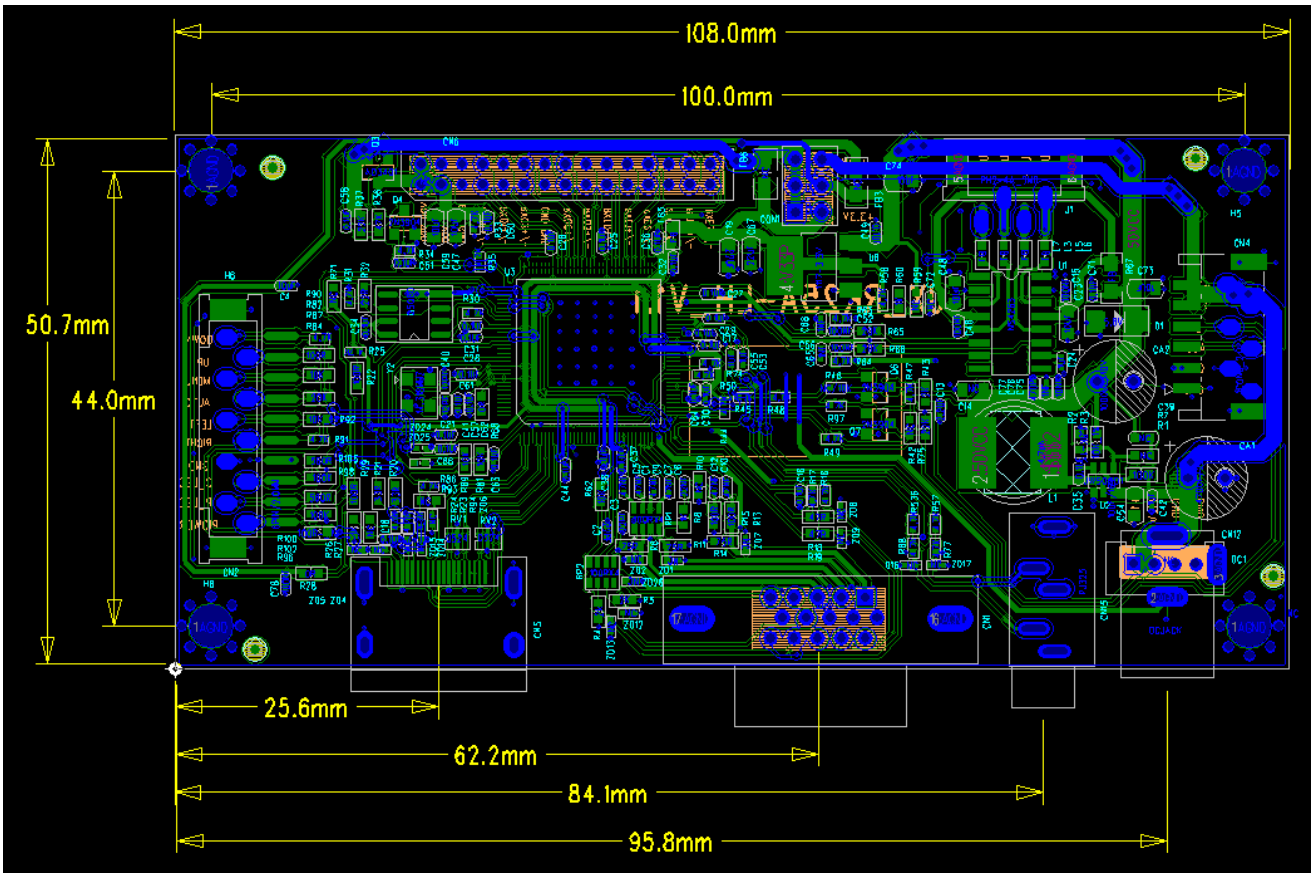
9. Keyboard Input Interface

Key Input

Pin Definition Guide:

Foot position number – Pin no.	Namename
1	POWER（ON/OFF）
2	LED-R
3	LED-G
4	GND
5	RIGHT
6	LEFT
7	AUTO
8	MENU
9	Obligate
10	Obligate

5. Structural Dimensions



6. Electrical Properties

Parameter	Minimum(MIN)	Standard(TYP)	Maximum(MAX)	Unit
Working voltage	10.8	12	13.2	V
Standby current	4	6	10	MA
Working temp-erature	-12		75	℃
Storage Tempe-rature	-20		85	℃
Work environ-ment humidity	40		95	%
Warehouse hu-midity	40		95	%

7. Precautions Matters requiring attention

1、Before powering on the device, always verify that the power cable is properly connected and that the display's supply voltage is correct; otherwise, the motherboard, power supply, or display may be damaged.

2、During warehousing and installation, ensure that proper anti-static and leakage current protection measures are implemented; otherwise, the motherboard and components may be damaged.

3、Before installation, customers should first verify whether the motherboard's functionality meets the specified requirements; waiting until after installation to discover this would be too late and could lead to serious consequences.

4、When operating the drive board, do not move the motherboard or disconnect/insert the power supply interface arbitrarily, as this may cause contact with conductive objects and potentially damage them.

5、If any defective products are discovered during installation, please place them in anti-static bags and store them together; we will arrange for their repair upon return. Please do not discard them carelessly.

6、If there are any stains on the board surface, please power off the device and clean it using a dry, soft cloth.

7、Avoid excessive pressure, bending, or exposure to rain, as these may cause damage.

Remarks: