BACKLIGHT DRIVING SCHEMATIC

FOR RIVERDI HB, IPS 15.6” TFT SERIES

Rev. 1.0
2025-06-04

Riverdi Sp. z o.o.
Nowy Swiat 36
80-299 Gdansk, Poland
VAT ID: PL5842767153
Registration number (KRS): 0000923967

+48 587 703 116
Office hours: 9:00 to 17:30 CET (Mon-Fri)
contact@riverdi.com
riverdi.com

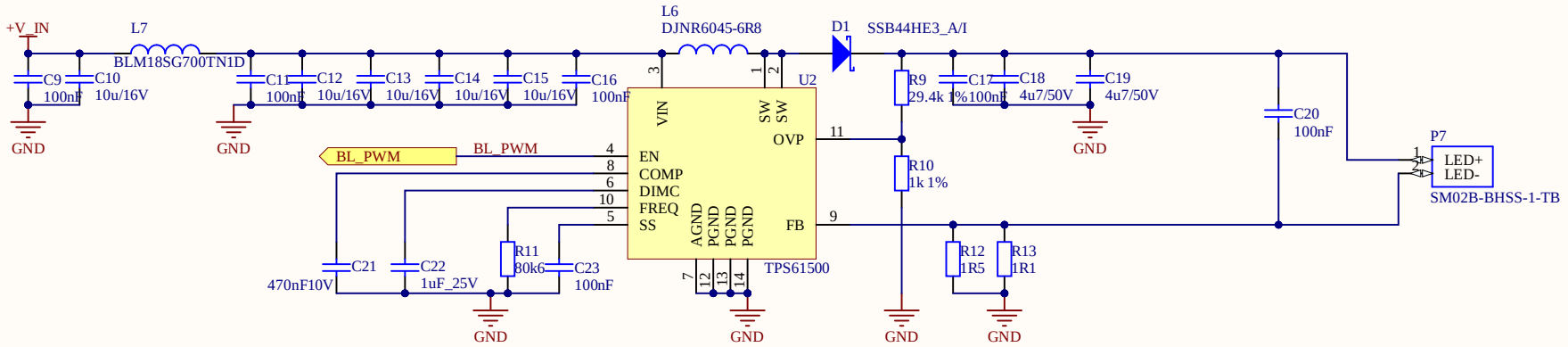
PRODUCT NAME	DESCRIPTION
RVT156HKLNWN00	HB, IPS, 15.6”, 1920x1080, 1000cd/m2, LVDS, no touch panel
RVT156HKLFWN00	HB, IPS, 15.6”, 1920x1080, 1000cd/m2, LVDS, no touch panel, metal frame
RVT156HKLNWC00-B	HB, IPS, 15.6”, 1920x1080, 850cd/m2, LVDS, uxTouch, optical bonding
RVT156HKLNWCA0-B	HB, IPS, 15.6”, 1920x1080, 850cd/m2, LVDS, aTouch, optical bonding
RVT156HKLFWCA0-B	HB, IPS, 15.6”, 1920x1080, 850cd/m2, LVDS, aTouch, optical bonding, metal frame

1. REVISION RECORD

REV NO.	REV DATE	CONTENTS	REMARKS
1.0	2025-06-04	Initial release	

2. CONTENTS

1. REVISION RECORD 3
2. CONTENTS 4
3. BACKLIGHT DRIVING CIRCUIT 5
4. CONTACT 7



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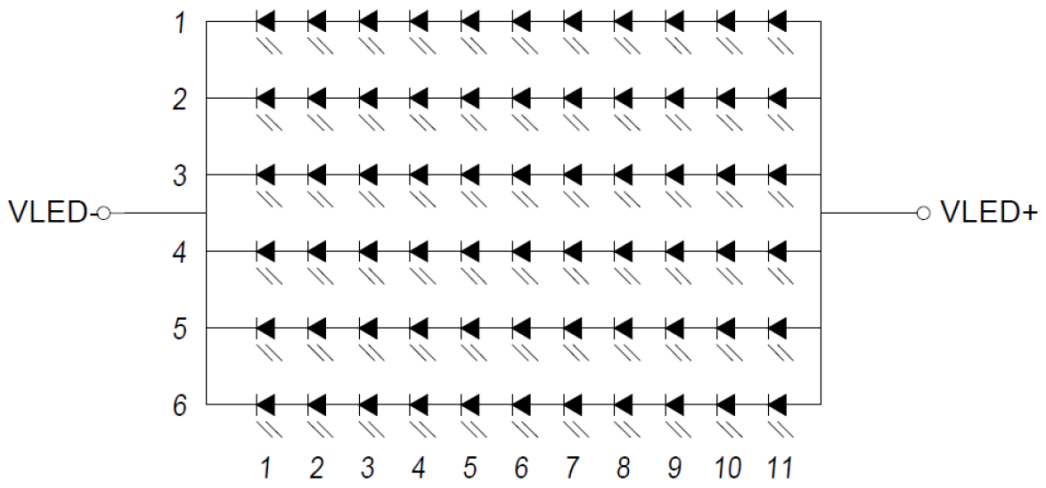
Internal backlight circuit of Riverdi HB, IPS 15.6” series is built with a 6x11 (11 LEDs in a row) LED matrix.



LED Diagram Circuit

Backlight parameters of Riverdi 15.6” HB, IPS series.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Backlight Driving Voltage	V_F	30.0	32.0	35.0	V
Backlight Driving Current	I_F	-	300	-	mA
Backlight Power Consumption	W_{BL}	-	9600	-	W
LED Lifetime	-	-	50.000	-	hours

TPS61500 have PWM dimming control input to the drive the LED current. TPS61500 have built-in low-pass filter which changes internal feedback voltage. By that, inverter is not switched on-off with PWM signal but change LEDs current effectively in continuous way which cause low EMI emissions.

Please note that all Riverdi displays are designed to have low emission, that’s why many LC components like beads and capacitors are on the schematic. They are not necessary but strongly recommended.

Recommended PWM frequency is 5kHz – 10kHz.

4. CONTACT

Your Success is Our Priority

Stuck on a technical challenge? Need expert guidance?

Our dedicated support team is just a message away.

Contact us at
contact@riverdi.com

We're here to ensure your project's success, every step of the way!