

Specifications for

Blanview TFT-LCD Monitor

Version 1.0

MODEL COM32H3N74ULC

Customer's Approval

Signature:

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Section:

Title:

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ORTUSTECH

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2. Outline Specifications

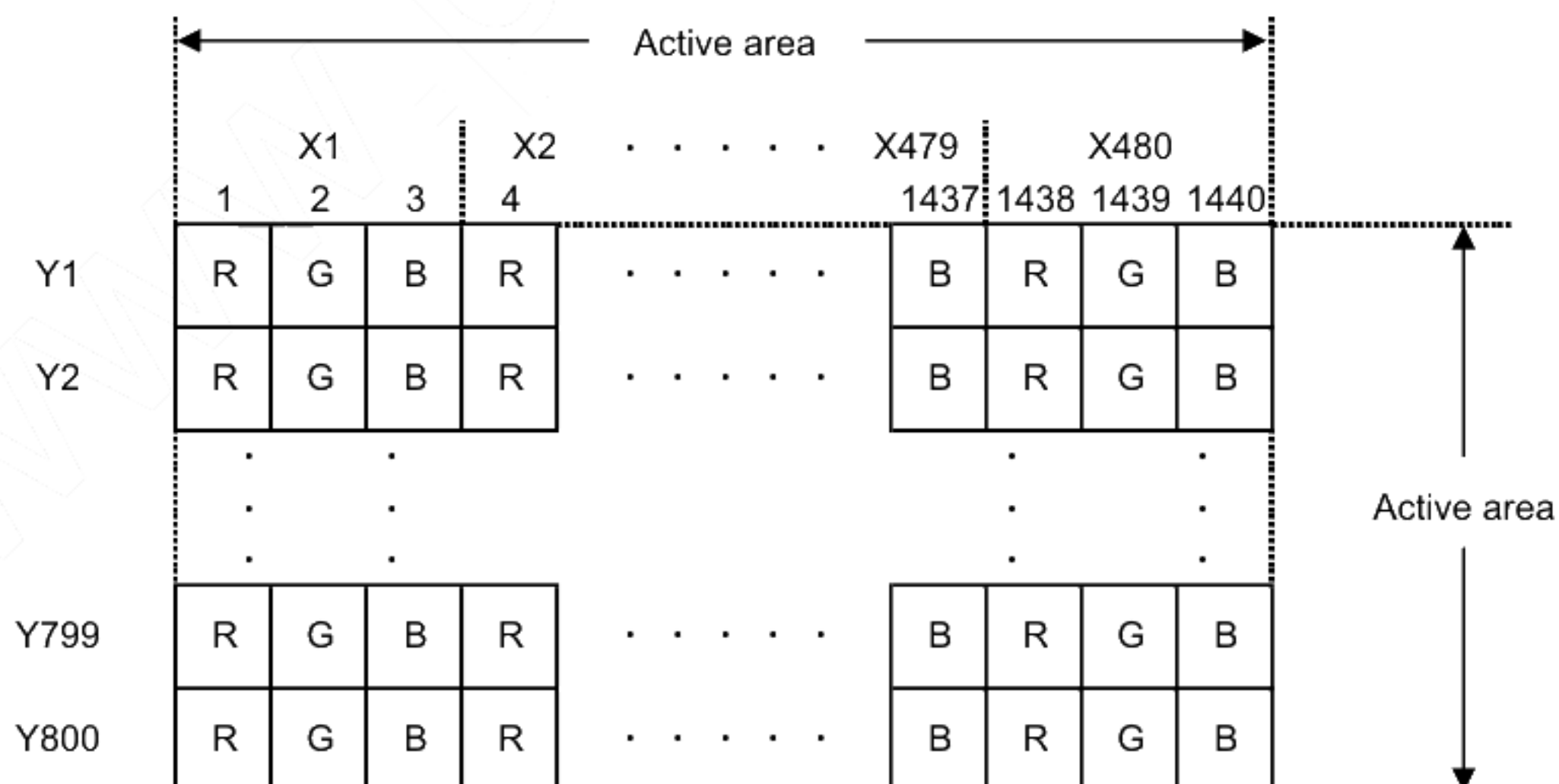
2.1 Features of the Product

- 3.2 inch diagonal display, 1,440 [H] x 800 [V] dots.
- 8-bit 16,777,216 color display capability.
- System Interface (Register setting)
- Serial Peripheral Interface (SPI)
- RGB interface with 24-bit data bus (VSYNC, HSYNC, ENABLE, DOTCLK, D23-0)
- Internal booster for various voltage levels to drive LC

	Indoor		Outdoor	
	Readability	Power Efficiency (Battery Life)	Readability	Power Efficiency (Battery Life)
Transmissive	Good	Good	Fair	Poor
Transflective	Fair	Poor	Good	Good
Blankview	Good	Good	Good	Good

2.2 Display Method

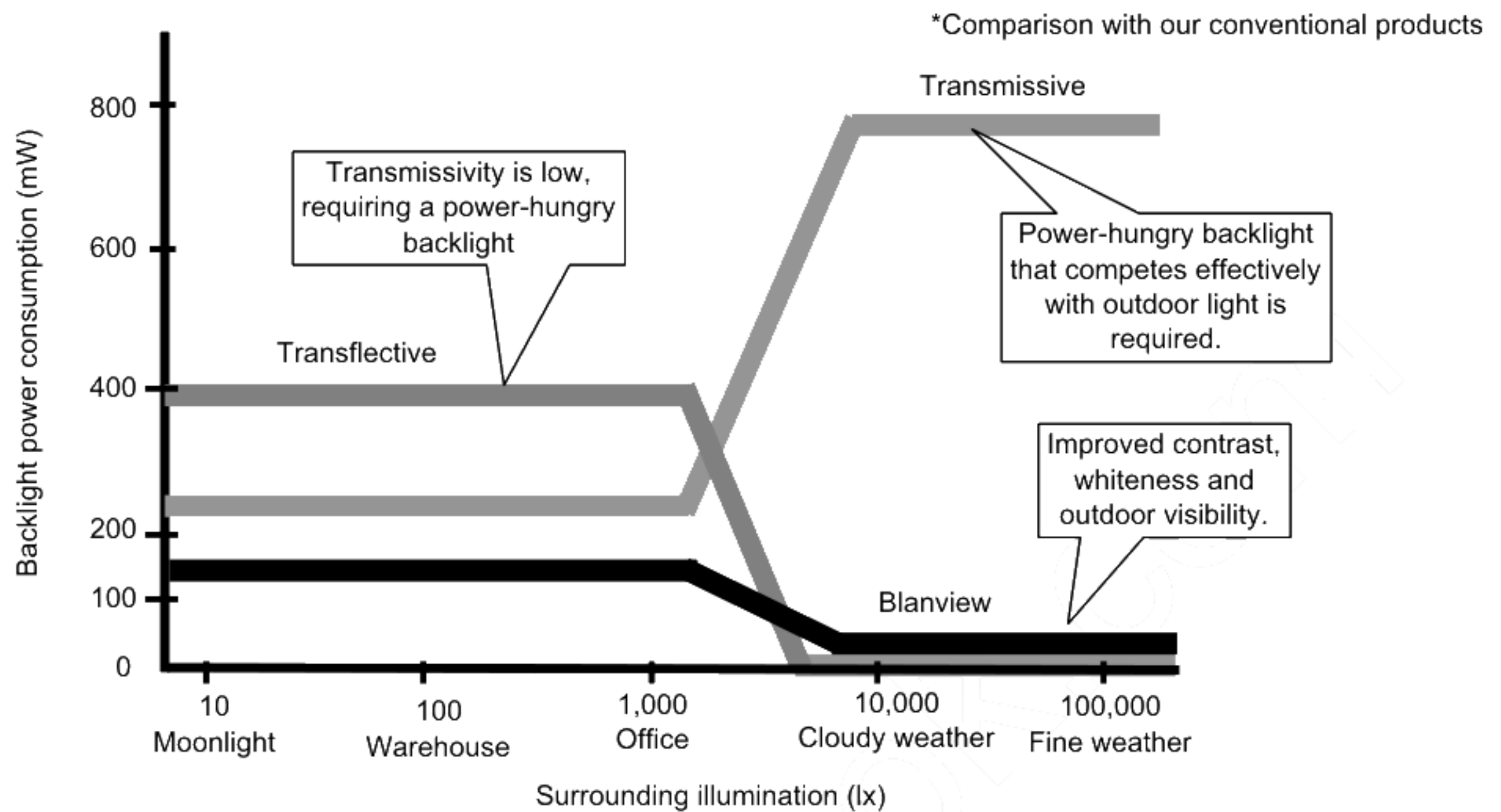
Items	Specifications	Remarks
Display type	16,777,216 colors. Blankview, Normally Black	
Driving method	a-Si TFT Active matrix Line-scanning, Non-interlace	
Dot arrangement	RGB stripe arrangement	Refer to "Dot arrangement"
Signal input method	Register : Serial Peripheral Interface (SPI) Data : 24 bit RGB interface	
Backlight type	Long life & High bright white LED.	



Dot arrangement
(When LSI is placed at the bottom)

<Features of Blanview>

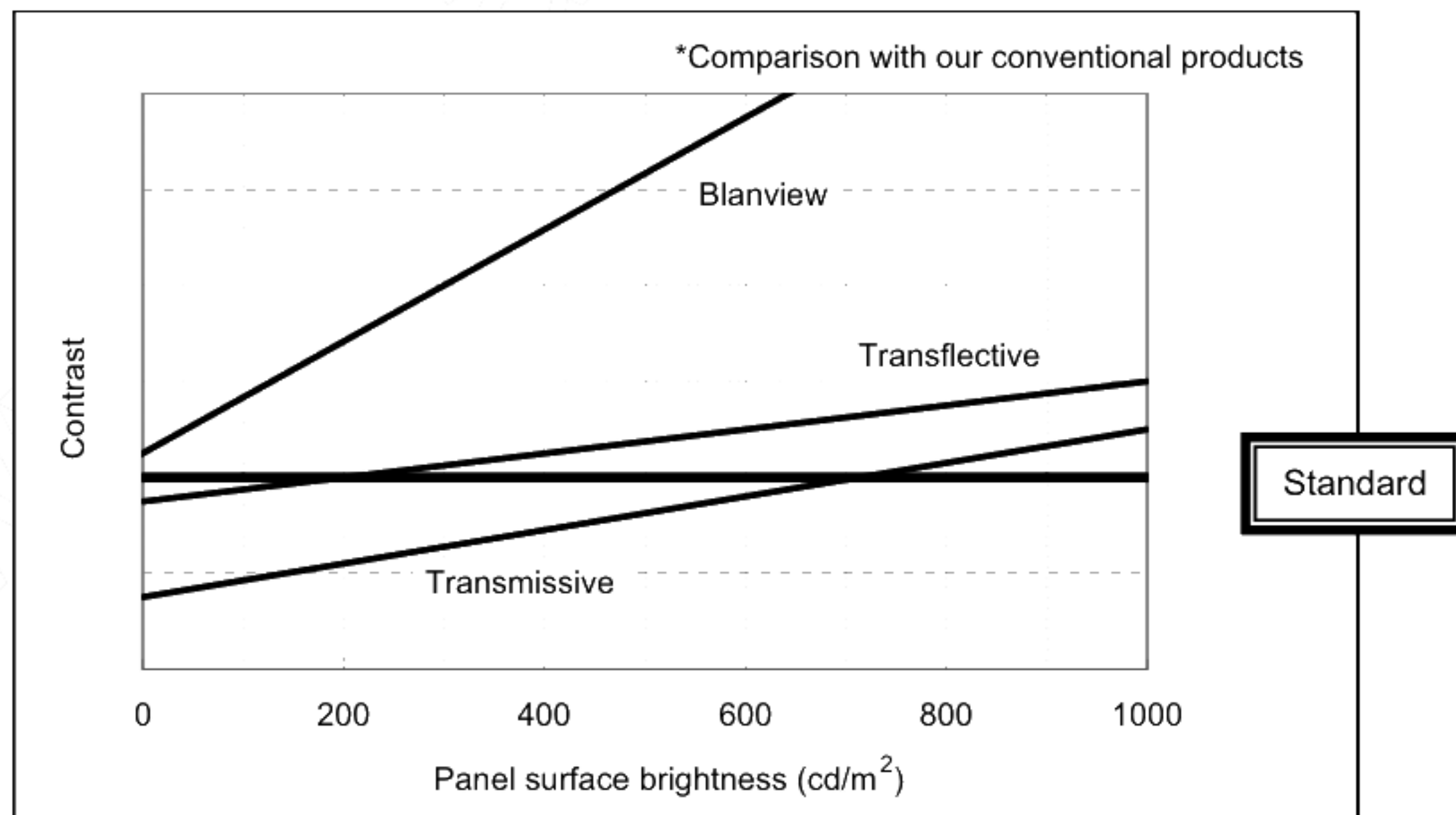
- Backlight power consumption required to assure visibility. (equivalent to 3.5"QVGA)



- Contrast characteristics under 100,000lx. (same condition as direct sunlight.)

With better contrast (higher contrast ratio), Blanview TFT-LCD has the best outdoor readability in three different types of TFT-LCD.

Below chart shows contrast value against panel surface brightness. (Horizontal: Panel surface brightness/ Vertical: Contrast value) LCD panel has enough outdoor readability above our Standard line. (ORTUS TECHNOLOGY criteria)



3. Dimensions and Shape

3.1 Dimensions

Items	Specifications	Unit	Remarks
Outline dimensions	46.66[H] × 78.55[V] × 1.75[D]	mm	Exclude FPC cable and parts on FPC
Active area	41.40[H] × 69.00[V]	mm	8.05cm diagonal
Number of dots	1440[H] × 800[V]	dot	
Dot pitch	28.75[H] × 86.25[V]	μm	
Surface hardness of the polarizer	3	H	Load:2.0N
Weight	14	g	Include FPC cable

3.3 Serial № print (S-print)

1) Display Items

S-print indicates the least significant digit of manufacture year (1digit),
manufacture month with below alphabet (1letter), model code (4characters), serial number (6digits).

* Contents of Display

*	*	****	*****
—	—	—	—
a	b	c	d

* Example of indication of Serial № print (S-print)

• Made in Japan

3H32NC000125

means "manufactured in August 2013, 3.2" N type, C specifications, serial number 000125"

• Made in Malaysia

3H32PC000125

means "manufactured in August 2013, 3.2" P type, C specifications, serial number 000125"

• Made in China

3H32QC000125

means "manufactured in August 2013, 3.2" Q type, C specifications, serial number 000125"

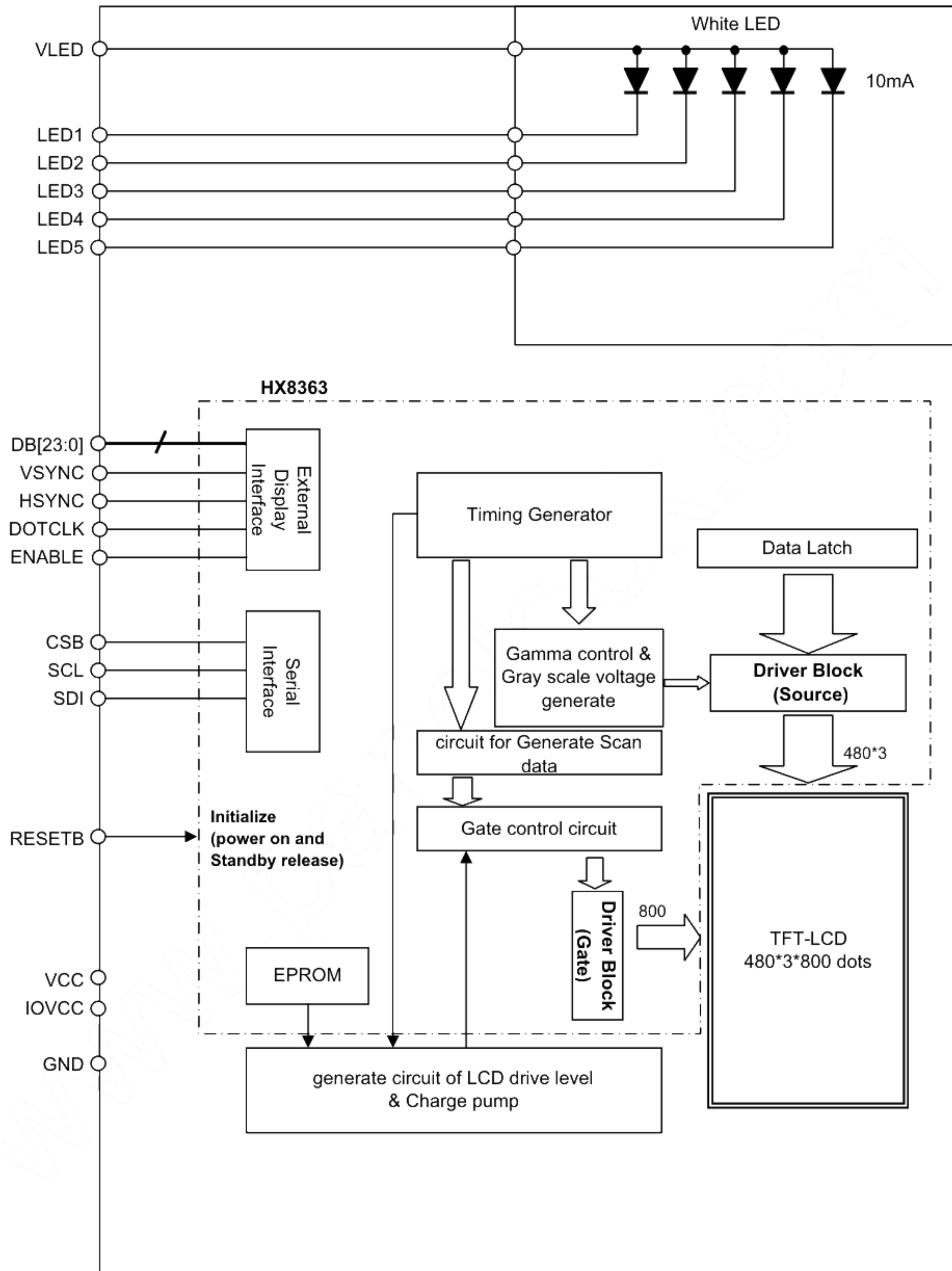
2) Location of Serial № print (S-print)

Refer to 3.2 "Outward Form".

3) Others

Please note that it is likely to disappear with an organic solvent about the Serial print.

4. Block Diagram

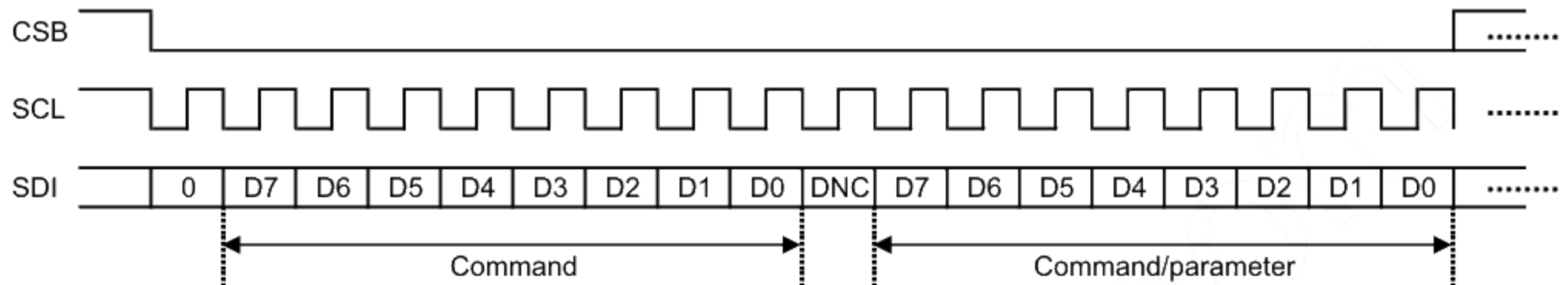


6. Serial Data Transfer Interface

Instructions are transferred using 3 wire serial data transfer interface. The 3 wire serial bus uses chip select line (CSB), serial input data (SDI) and serial transfer clock line (SCL).

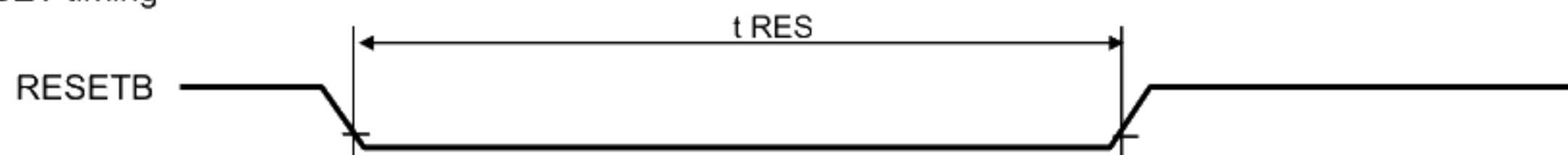
The 3 wire serial data packet is consists of control bit DNC and transmission byte. If the control bit is low, the transmission byte is command byte. If the control bit is high, the transmission byte is stored to command register. DNC should be transferred first , followed by MSB of transmission byte.

The serial interface is initialized when CSB is high, and the falling edge of CSB enables the serial interface.



12.2 AC Characteristics

RESET timing



Reset low pulse width shorter than 10us do not make reset. It means undesired short pulse such as glitch, bouncing noise or electrostatic discharge do not cause irregular system reset. Please refer to the table below.

RESET timing spec

Item	Symbol	Condition	Rating			Unit
			MIN	TYP	MAX	
Reset low pulse width	t_{RES}		10	-	-	μs

t_{RES} Pulse	Action
Shorter than 5 μs	No reset
Longer than 10 μs	Reset
Between 5 μs and 10 μs	Not determined

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