

## **ALLNET** **7" RGB LCD Display Module**

*Das LCD Display können Sie schnell und einfach über den RGB Connector an den Banana Pi anbinden. Mit einer Auflösung von 1024x600 Pixeln bietet das Display eine perfekte Auflösung und lässt sich durch das sehr geringe Gewicht flexibel und portabel einsetzen.*

**Artikel: 114694**



## Produkt Details:

### LCD Größe:

7" (Diagonale)

### Anschluss:

Parallel RGB

### Auflösung:

1024 x 600px

### Treiber Technologie:

a-SI TFT active matrix

### DOT Pitch

0,05 x 0,15mm (B/H)

### Anbindung an Banana Pi:

40 Pin FOC Stecker für Display Sensor Interface (DSI)

### Display:

Glanz

### Farb Anordnung:

RGB

### Ansicht-richtung:

6 = 0'Clock

### Stromversorgung:

5V/550mA

### Sichtbarer Bereich:

153,6 x 90 mm (B/H)

### Abmessungen

165,75 x 105,39 x 2,45mm (B/H/T)

# **Banana Pi**

## **7 inch LCD MODULE**

## **SPECIFICATION**

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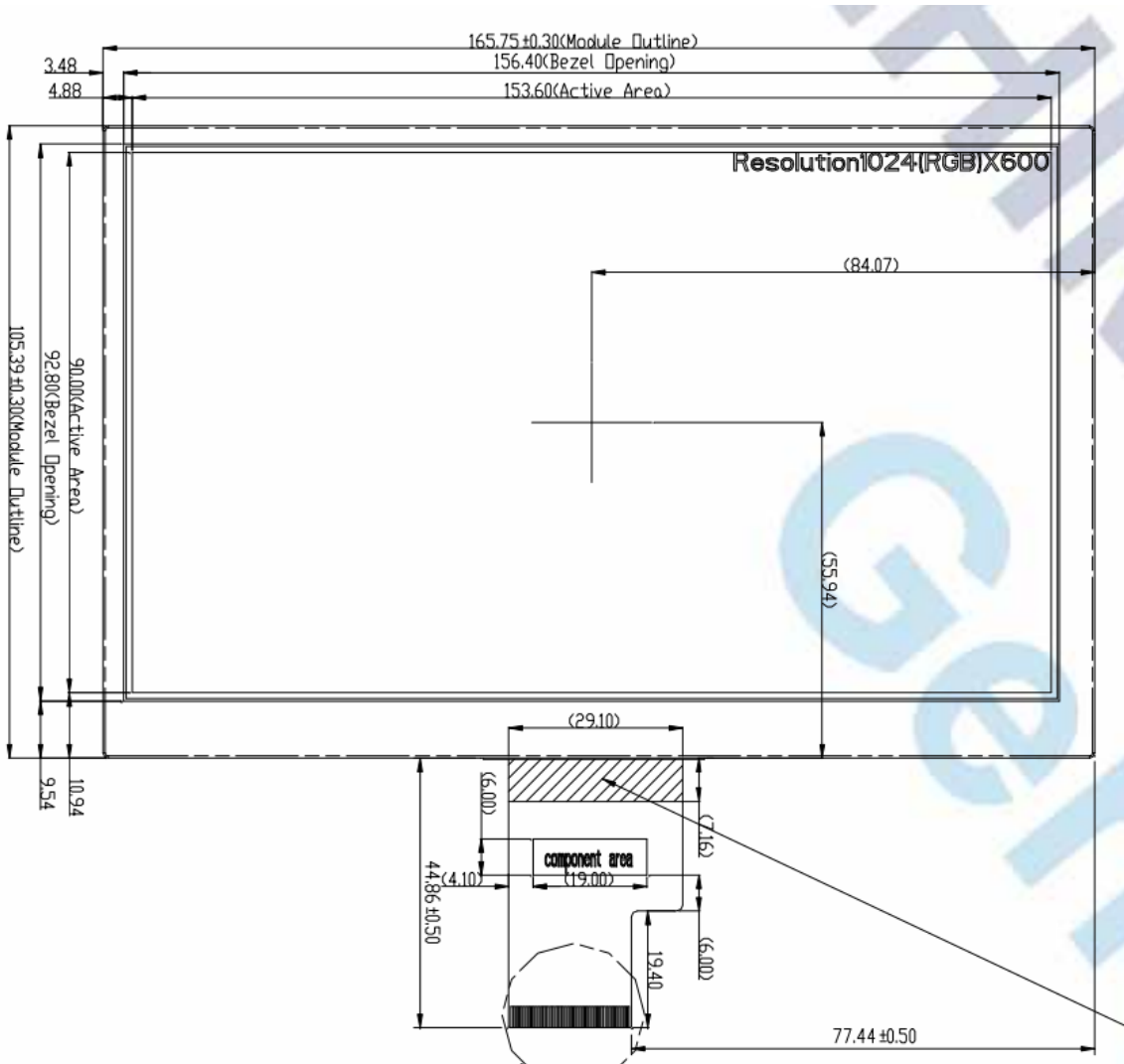
**V1.0**

**By Tony**

[www.lemaker.org](http://www.lemaker.org)

## 1. Product Picture

## 2. Mechanical Drawing



### 3. General Specifications

#### ➤ Electrical Specifications

Item	Specification	Remark
Power	5V(Typ.)	
Current	550mA(Typ.)	
Interface	LVDS 6 bits or 8bits	Default is 8bits

#### ➤ LCD Specifications

Item	Specification	Remark
LCD size	7.0 inch(Diagonal)	
Driver element	a-Si TFT active matrix	
Resolution	1024 ×3(RGB) ×600	
Display mode	Normally White, Transmissive	
Dot pitch	0.05(W) ×0.15(H) mm	
Active area	153.6(W) ×90.0(H) mm	
Module size	165.75 (W) ×105.39(H) ×2.45(D)mm	Note 1
Surface treatment	Glare	
Color arrangement	RGB-stripe	
View direction(Gray Inversion)	6 O' Clock	
Backlight power consumption	1.488 W(Typ.)	
Panel power consumption	TBD	
Weight	TBD	

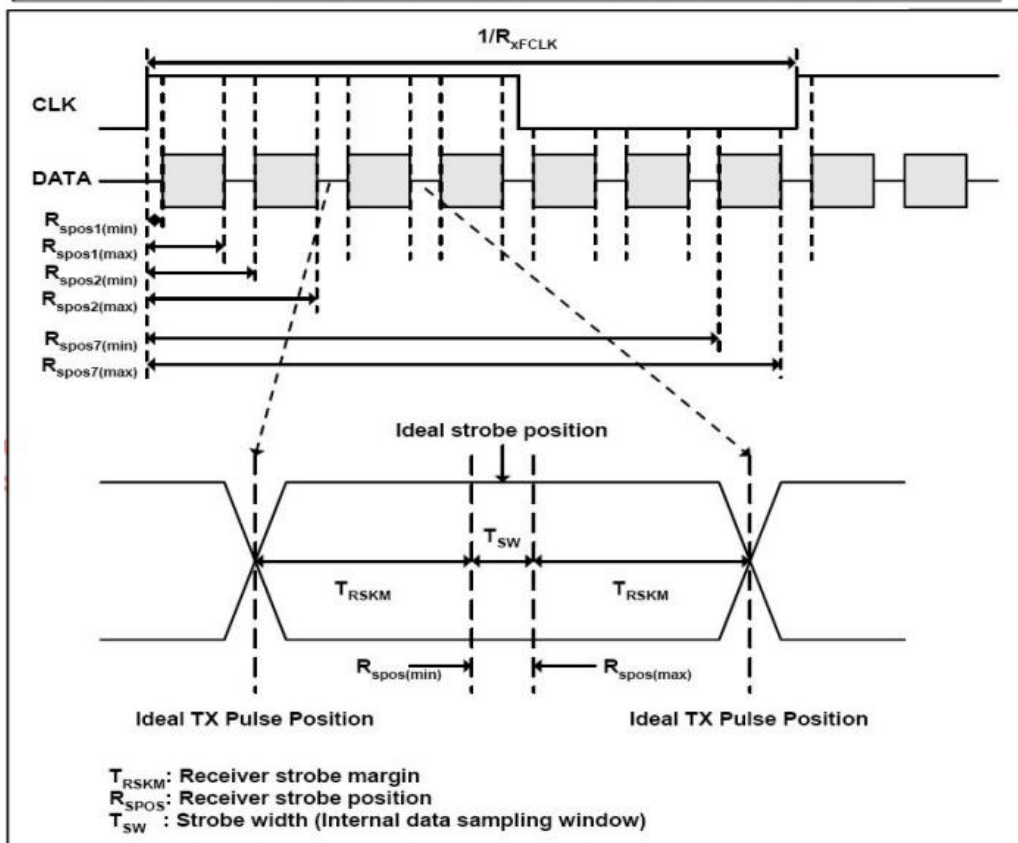
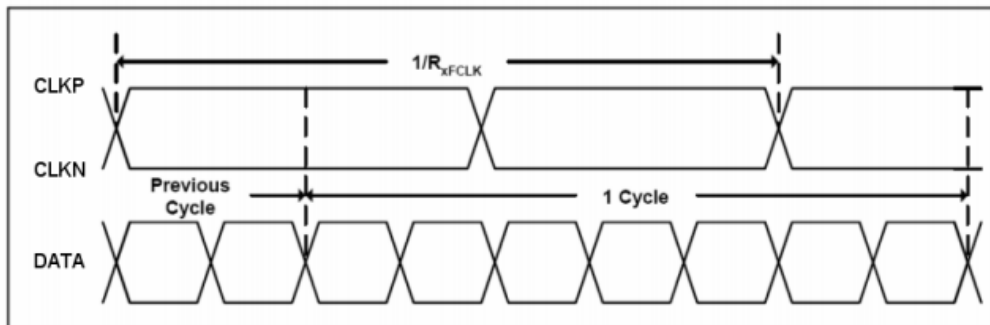
Note 1: Refer to Mechanical Drawing.

## 4. Timing Characteristics

### ➤ AC Electrical Characteristics

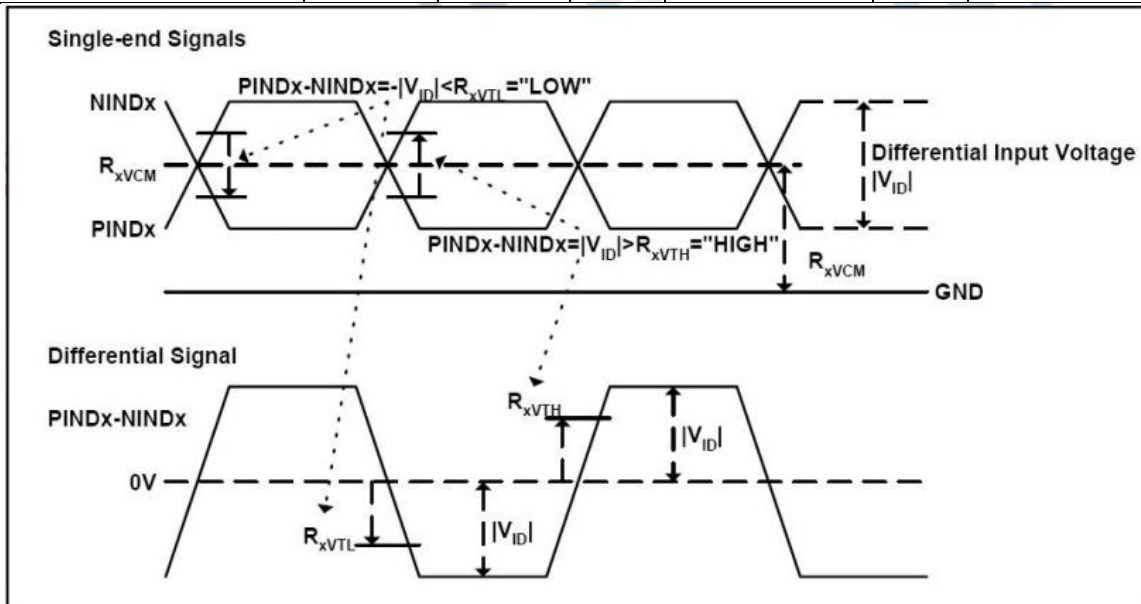
Parameter	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Clock frequency	RxFCLK	40.8	51.2	67.2	MHz	
Input data skew margin	TRSKM	500	-	-	ps	
Clock high time	TLVCH	-	$4/(7 * RxFCLK)$	-	ps	
Clock low time	TLVCL	-	$3/(7 * RxFCLK)$	-	ps	

### ➤ Input Clock and Data Timing Diagram



➤ **DC Electrical Characteristics**

Parameter	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Differential input high Threshold voltage	RxVTH	-	-	+0.1	V	RXVCM=1.2V
Differential input low Threshold voltage	RxVTL	-0.1	-	-	V	
Input voltage range (singled-end)	RxVIN	0	-	2.4	V	
Differential input common mode voltage	RxVCM	VID /2	-	2.4- VID /2/2	V	
Differential voltage	VID	0.2	-	0.6	V	
Differential input leakage current	RVxliz	-10	-	+10	uA	

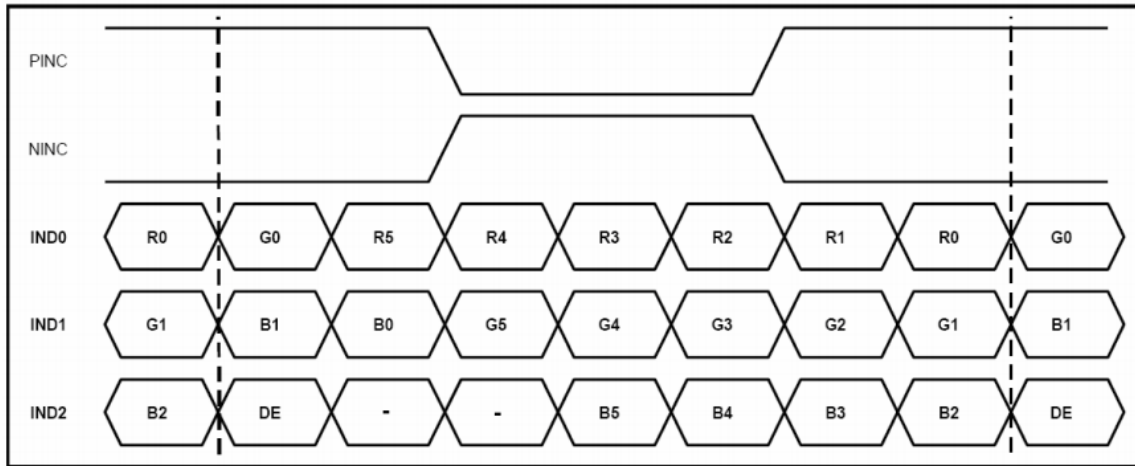


➤ **Timing**

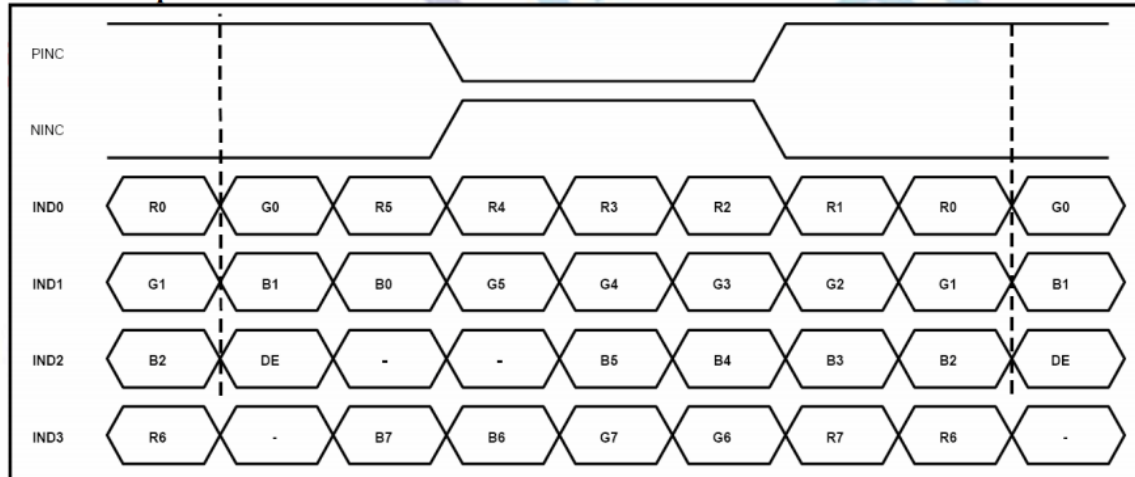
Item	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Clock Frequency	Fclk	40.8	51.2	67.2	MHZ	Frame rate =60Hz
Horizontal display area	Thd	1024			DCLK	
HS period time	Th	1114	1344	1400	DCLK	
HS Blanking	Thb	90	320	376	DCLK	
Vertical display area	Tvd	600			H	
VS period time	Tv	610	635	800	H	
VS Blanking	Thb	10	35	200	H	

➤ **Data Input Format**

**6bit LVDS input**



**8bit LVDS input**



Note: Support DE timing mode only, SYNC mode not supported.



## 5. Optical Specifications

Item	Symbol	Condition	Values			Unit	Remark
			Min.	Typ.	Max.		
Viewing angle (CR≥10)	θL	Φ=180°(9 o' clock)	65	75	-	degree	
	θR	Φ=0°(3 o' clock)	65	75	-		
	θT	Φ=90°(12 o' clock)	60	70	-		
	θB	Φ=270°(6 o' clock)	65	75	-		
Response time	TON	Normal θ=Φ=0°	-	10	20	msec	
	TOFF		-	15	30	msec	
Contrast ratio	CR		500	700	-	-	
Color chromaticity	WX		0.26	0.31	0.36	-	
	WY		0.28	0.33	0.38	-	
Luminance	L		200	250	-	cd/m <sup>2</sup>	
Luminance uniformity	YU		70	75	-	%	

