Banana Pi LCD module

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Attention:

Due to technical requirements components, please do not hand directly connected
Touch. Core board and development system contains static-sensitive devices. Quiet Electrical charge easily accumulate in the human body and the device can not detect possible Damage to equipment, it is recommended to take anti-static measures, it is recommended not to hand. Touch, stored in anti-static effect devices.

Product Specification：

LCD module for Banana Pi board via an conversion board to connect to the LCD connector designed specifically for interfacing to LCD.

Specifications

TFT LCD MODULE	S070WV20-CT16
TP MODULE	FT5306
Size	7.0 inches
Resolution	800 (RGB) x 480
Interface	24-bit RGB
Connect type	Connector
Color Depth	262K
Display element	a-si
Display Spec. Pixel pitch (mm)	0.192 x 0.1805
Pixel Configuration	R.G.B. Vertical Stripe
Display Mode	Normally White
Driver IC	HX8254-D, HX8664-B
Surface Treatment	HC
Viewing Direction	6 O'clock
LCM(WxHxD) (mm)	164.9 X 100.0 X 5
Active Area(mm)	154.08 X 85.92
With / Without TSP	With CTP
Weight (g)	TBD
LED Numbers	27 LEDS

Interface Timing

5.2 Interface Timing

Item	Symbol	Min.	Typ.	Max.	Unit	Note
DCLK cycle time	Tcph	25			ns	
DCLK frequency	fclk		30	40	MHz	
DCLK pulse duty	Tcwh	40	50	60	%	
VSD setup time	Tvst	8			ns	
VSD hold time	Tvhd	8			ns	
HSD setup time	Thst	8			ns	
HSD hold time	Thhd	8			ns	
Data setup time	Tdsu	8			ns	
Data hold time	Tdhd	8			ns	
DE setup time	Tesu	8			ns	
DE hold time	Tehd	8			ns	
Horizontal display area	thd		800		Tcph	
HSD period time	th		928		Tcph	
HSD pulse width	thpw	1	48		Tcph	
HSD back porch	thb		40		Tcph	
HSD front porch	thfp		40		Tcph	
Vertical display area	tvd		480		th	
VSD period time	tv		525		th	
VSD pulse width	tvpw		3		th	
VSD back porch	tvb		29		th	
VSD front porch	tvfp		13		th	

Conversion board

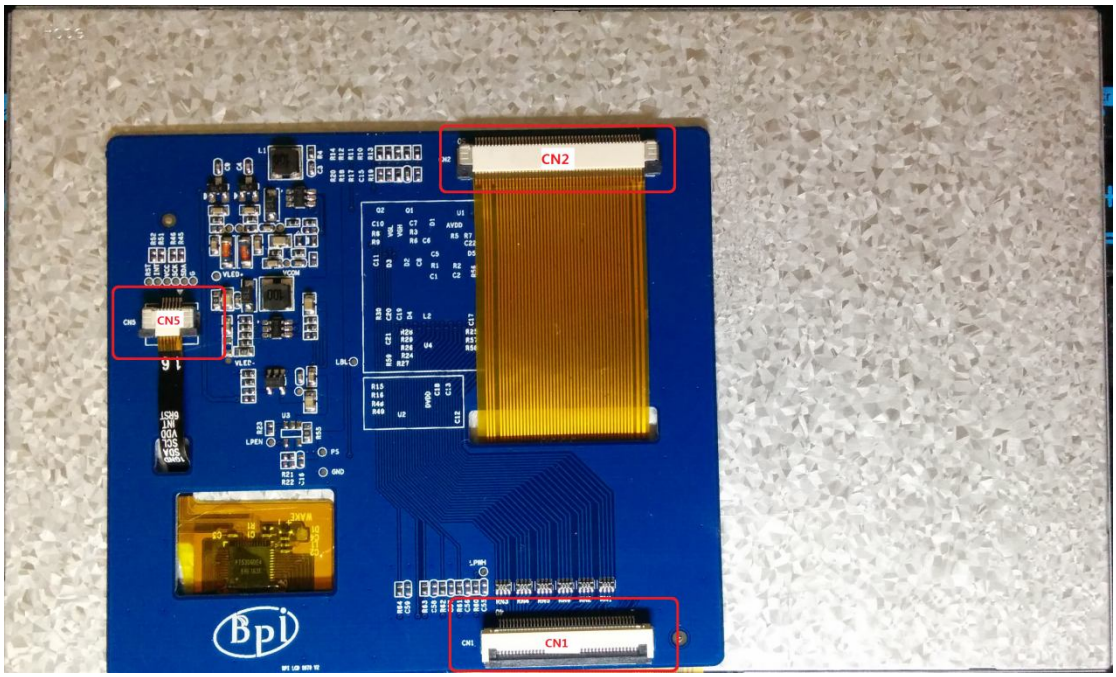
Banana pi LCD Connector

The LCD Connector is a 40-pin FPC connector which can connect external LCD module with proper conversion board. The pin definitions of the LCD interface are shown as below. This is marked on the Banana Pi board as “CON2″.

LCD Pin	Pin Name	GPIO
CON2 P01	IPSOUT	
CON2 P02	TWI3-SDA	
CON2 P03	IPSOUT	
CON2 P04	TWI3-SCK	
CON2 P05	GND	
CON2 P06	LCD0-IO0	PH07
CON2 P07	LCDIO-03	PH12
CON2 P08	LCD0-IO1	PH08
CON2 P09	LCD0-D0	PD00
CON2 P10	PWM0	
CON2 P11	LCD0-D1	PD01
CON2 P12	LCD0-IO2	PH09
CON2 P13	LCD0-D2	PD02
CON2 P14	LCD0-DE	PD25
CON2 P15	LCD0-D3	PD03

CON2 P16	LCD0-VSYNC	PD27
CON2 P17	LCD0-D4	PD04
CON2 P18	LCD0-HSYNC	PD26
CON2 P19	LCD0-D5	PD05
CON2 P20	LCD0-CS	PH06
CON2 P21	LCD0-D6	PD06
CON2 P22	LCD0-CLK	PD24
CON2 P23	LCD0-D7	PD07
CON2 P24	GND	
CON2 P25	LCD0-D8	PD08
CON2 P26	LCD0-D23	PD23
CON2 P27	LCD0-D9	PD09
CON2 P28	LCD0-D22	PD22
CON2 P29	LCD0-D10	PD10
CON2 P30	LCD0-D21	PD21
CON2 P31	LCD0-D11	PD11
CON2 P32	LCD0-D20	PD20
CON2 P33	LCD0-D12	PD12
CON2 P34	LCD0-D19	PD19
CON2 P35	LCD0-D13	PD13
CON2 P36	LCD0-D18	PD18
CON2 P37	LCD0-D14	PD14
CON2 P38	LCD0-D17	PD17
CON2 P39	LCD0-D15	PD15
CON2 P40	LCD0-D16	PD16

Conversion board



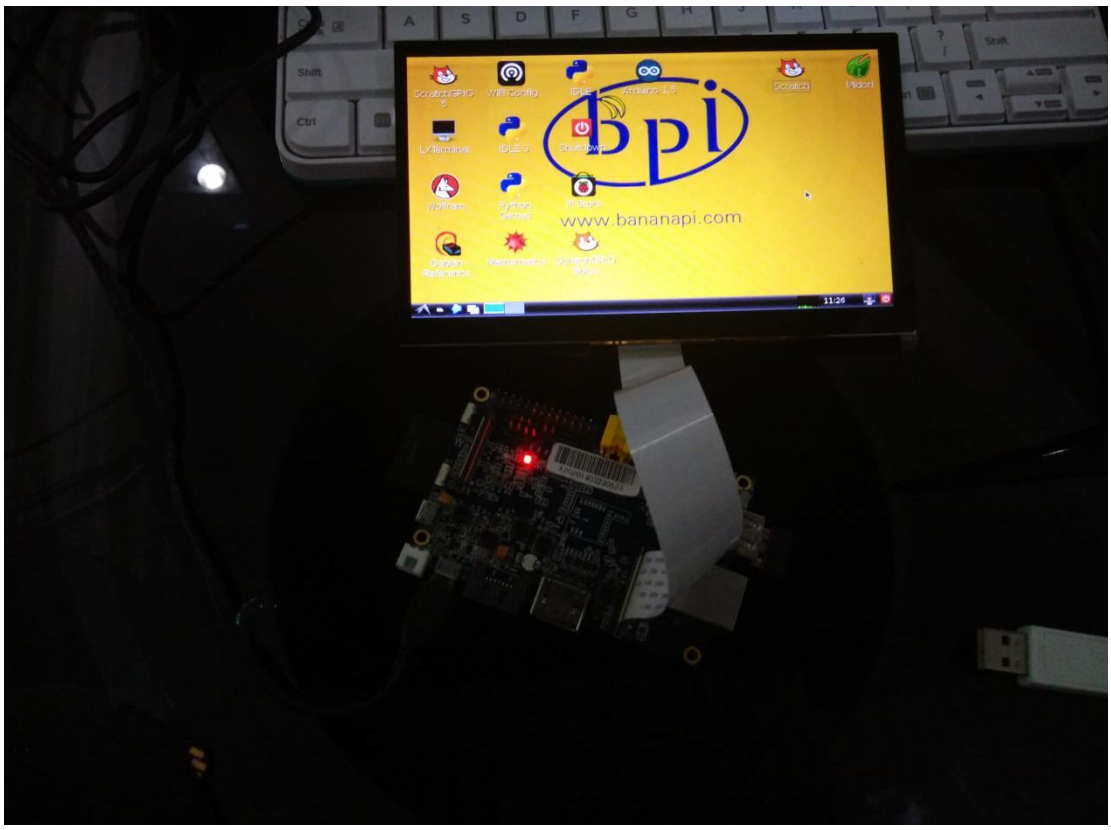
CN2：LCD connector

CN5：TP connector

CN1：Bpi connector

Use of LCD

1.Linux for LCD



2. Android4.4 for LCD