BeagleBone LCD3

From BEAGLE BOARD TOYS WIKI

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Descriptions

The BeagleBone LCD3 Cape provides a portable LCD solution with touchscreen capability for BeagleBone boards. The 3.5" TFT LCD screen, attached to the topside of the board, can display up to a resolution of 320x240 and is a 4-wire resistive touchscreen. The board is equipped with seven buttons located at finger-friendly positions. These buttons include power, reset, and five user buttons, which are mapped to different GPIO signals. The backside of the Cape is where a BeagleBone can be mounted.



Specifications

Followings are some specifications of the BeagleBone LCD3 Cape:

Electrical Specifications

Power	3.3V via expansion header	
	5V via expansion header	
Display Model	Elpa Displays S035Q01	

Display Type	3.5" TFT LCD	
Resolution	320x240	
Touchscreen	4-wire	
Terdinatera	One Power LED	
Indicators	Two User LEDs	
Buttons	One power button	
	One reset button	
	Five user buttons	
Connectors	One 46-position male headers	
	One 20-position male header	
	One 6-position male connector	

Mechanical Specifications

Size	4.00" x 2.50"	
Layers	4	
PCB Thickness	.062"	
RoHS Compliant	Yes	

Signal Usage

The BeagleBone LCD3 Cape uses 47 signals including:

- VDD_3V3EXP
- SYS5V
- DGND
- PWR_BUT
- SYSRESETn
- GPIO1 28
- EHRPWM1A
- GPIO1_16
- GPIO1_19
- SPI_CS
- SPI_MOSI
- SPI_CLK
- $I2C\overline{2}$ _SCL
- I2C2_SDA
- GPIO1_17
- GPIO3_19
- AIN0

- AIN1
- AIN2
- AIN3
- GPIO0_7
- LCD_VSYNC
- LCD_HSYNC
- LCD_PCLK
- LCD_EN
- LCD_DATA[0..15]
- BL_ISET2
- BL_ISET1
- BL_OUT
- BL_IN
- BL_SINK1
- BL_SINK2

EEPROM

		P6 L ISET2 BL_OUT L_SINK1	BL_ISET1 BL_IN BL_SINK2		
GND VDD_3V3EXP	1 2	GND VDD_3V3EXP		1 2	
SYS_5V PWR_BUT	9 10	SYS_5V SYS_RESETn GPIO1_28		9 10	
GPIO1_16 SPI_CS I2C2_SCL	19 20	EHRPWM1A GPIO1_19 SPI_MOSI I2C2_SDA SPI_CLK		19 20	
GPI01_17		SFI_CLK			
GPIO3_19	29 30		LCD_VSYNC LCD_HSYNC LCD_DATA14 LCD_DATA13 LCD_DATA12	29 30	LCD_PCLK LCD_EN LCD_DATA15 LCD_DATA11 LCD_DATA10
AIN2 AIN0	39 40	AIN3 AIN1	LCD_DATA8 LCD_DATA6	39 40	LCD_DATA9 LCD_DATA7
GND GND		GPIO0_7 GND GND	LCD_DATA4 LCD_DATA2 LCD_DATA0		LCD_DATA5 LCD_DATA3 LCD_DATA1
	P	9		P8	

EEPROM Suport	Yes
Board Name	BeagleBone LCD3 Cape
Version	00A0
Manufacturer	BeagleBoardToys
Part Number	BB-BONE-LCD3-01
Pins Used	54

Distributors

Distributor list will be posted soon.

Product Images



BeagleBone LCD3



Bottom side

Documentations

BeagleBone LCD3 Revision A

Documentations coming soon.

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