

C I N D U E L

承 典 工 控

CDHX-6UL V1.0.0 *Embedded development board*

Hardware manual

VERSION: V1.0.0

2019年05月

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Model:	CDHX-6UL	PCBA No:	CDHX-6UL-V190505	
Organization:		To Examine:	Electron	
			Software	
Version change record				
Version	Date	Page Number	Explanatory note	To Examine
V1.0.0	2019-05-05			

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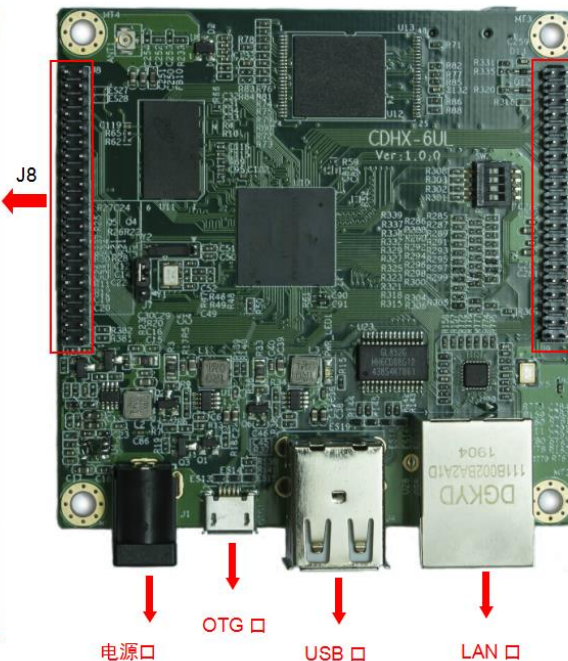
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一、Product Overview

CPU and storage unit	CPU Description	ARM® CortexARM® Cortex-A7, operating frequency 528 MHz 528 MHz
	RAM	256M / 512M
	EMMC/NAND FLASH	4G,8G / 256M,512M
	System	Linux , Debian
Data transmission interface	1 X TF	TF card multimedia storage device (Micro SD connector) (TF)
	2 x USB2.0 HOST	High speed, 480Mbps (USB A-type connector) (J25, J27)
	1 X USB2.0 HOST	High speed, 480Mbps (PH2.0 pitch socket) (USB34)
	1 x USB2.0 OTG	High speed, 480Mbps (Micro USB connector) (OTG1)
	1 x 100M Ethernet port	100MHZ adaptive network interface device (10M/100M/)
	1 pin expandable network port	100MHZ adaptive network interface device
	4 x TTL serial port	4-way TTL serial port
Video Signal	LCD screen interface	Resolution up to (1366x768)
Power Interface	5V power interface	DC socket 5V/2A
Expansion	2xCAN, 1xI2S 1xCSI, 1xI2C	2-way CAN interface; Provide parallel CSI standard Camera interface ports

二、Interface Description

Signal Name	PIN	Signal Name
SNVS_TAMPER4	40	39 GND
SNVS_TAMPER2	38	37 USB_HUB_2+
JTAG_TDI	36	35 USB_HUB_2-
JTAG_MOD	34	33 VCC_USB3
JTAG_TMS	32	31 VCC_OTG_5V
JTAG_nTRST	30	29 OTG1_ID_R
JTAG_TDO	28	27 OTG1_DP_R
JTAG_TCK	26	25 OTG1_DM_R
GND	24	23 GPIO_2
GPIO_0	22	21 GPIO_1
CAN2_TX	20	19 GPIO_4
CAN2_RX	18	17 GPIO_3
GND	16	15 CAN1_TX
UART2_TXD	14	13 CAN1_RX
UART2_RXD	12	11 GND
GND	10	9 UART3_RXD
UART4_TXD	8	7 UART3_TXD
UART4_RXD	6	5 GND
I2C2_SDA_EXP	4	3 UART1_TXD
I2C2_SCL_EXP	2	1 UART1_RXD



Signal Name	PIN	Signal Name
JFP_PWRSW	1	2 GND
JFP_RST	3	4 PWRLED
CSI_MCLK	5	6 CSI_HSYNC
CSI_VSYNC	7	8 CSI_DATA0
CSI_DATA3	9	10 CSI_DATA2
CSI_DATA1	11	12 CSI_PIXCLK
CSI_DATA7	13	14 CSI_DATA6
CSI_DATA4	15	16 CSI_DATA5
GND	17	18 GND
GND	19	20 GND
VSYS	21	22 VSYS
VSYS	23	24 VSYS
DCDC_3V3	25	26 DCDC_3V3
DCDC_3V3	27	28 DCDC_3V3
ENET2_TXD0	29	30 ENET2_TXEN
ENET2_RXD1	31	32 ENET2_CRS_DV
ENET2_RXD1	33	34 ENET2_RXD0
ENET2_RXER	35	36 ENET2_TX_CLK
ENET_MDIO	37	38 ENET_MDC
ENET2_nINT	39	40 ENET2_nRST

三、 Silk screen illustration

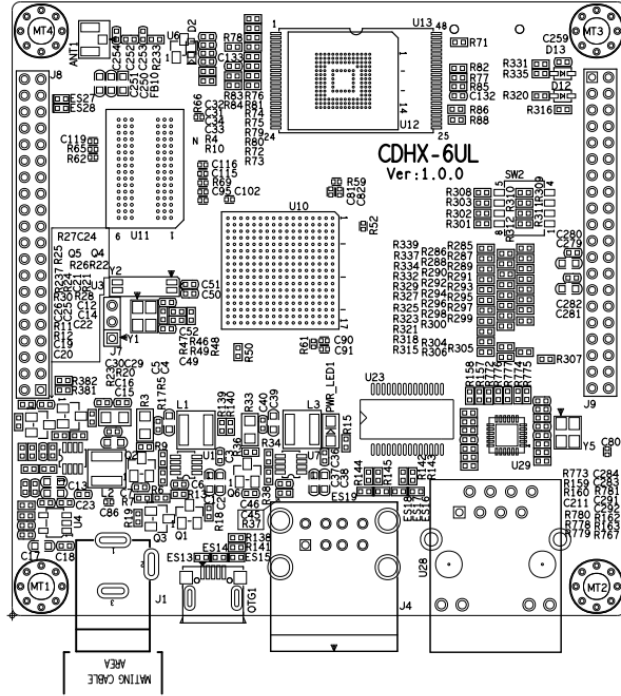


Figure 3 (Front Screen Printing)

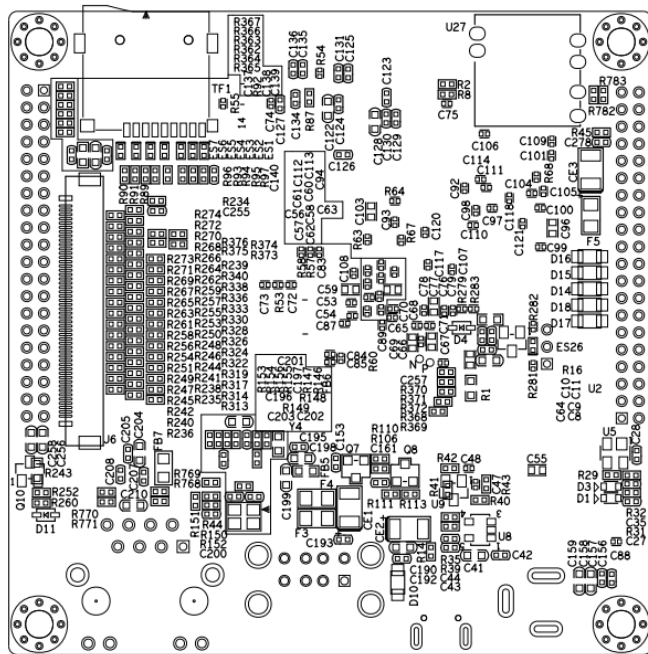


Figure 4 (Bottom Screen Printing)

四、Structural diagram

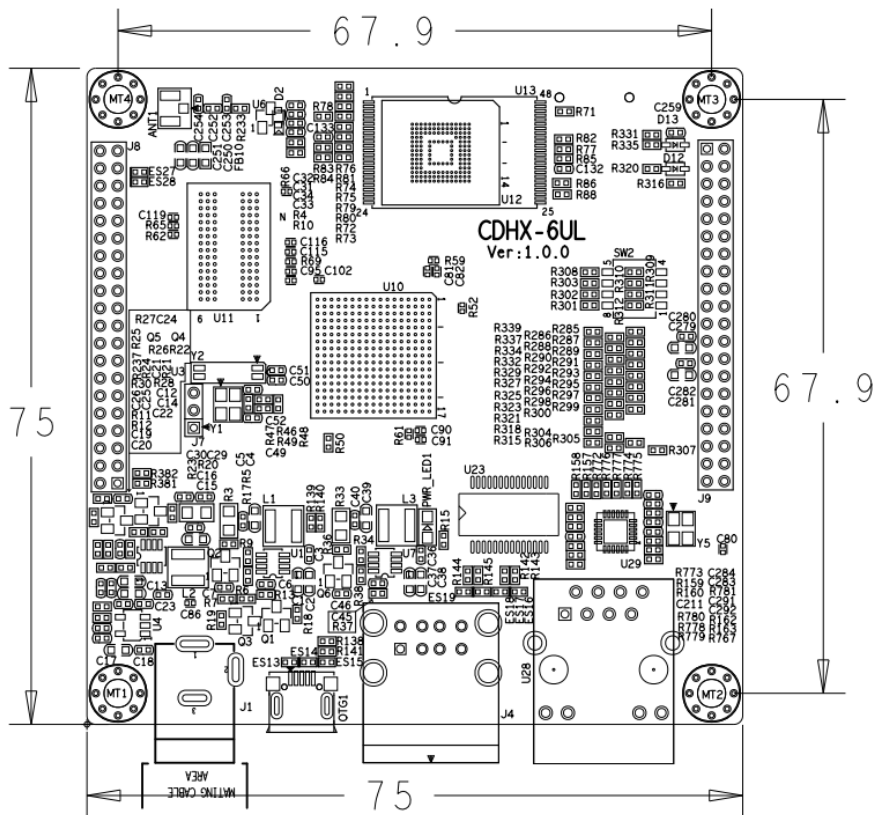


Figure 5 (Plane Structure Dimensions)

五、Transportation, storage, and usage conditions

1. Storage environment: anti-static, moisture-proof, and anti backlog
2. Input voltage: DC 5V
3. RTC Button cell: 3.3V (lithium)
4. Working environment temperature: $-20\sim 60\text{ }^{\circ}\text{C}$
5. Relative humidity: 20%~70%
6. Storage environment temperature: $-20\sim 60\text{ }^{\circ}\text{C}$

This SPEC may not fully reflect all the latest changes made by PCBA, and the actual product shall prevail