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| Product name产品名称 | Confidentiality level密级 |
|  | 秘密 |
| Product version产品版本 | Total 11 pages 共11页 |
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HSIC8001 虹膜识别芯片

Cortex-M4主控Demo硬件设计需求书

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**武汉虹识技术有限公司**

**Wuhan Hongshi Technologies Co.，Ltd.**

1. **系统概述**

本板卡配套HSIC8001板卡使用，主要实现HSIC8001的图像显示与数据存储，

1. **板卡基本技术要求：**
2. **板卡硬件要求：**
   * + 1. 板卡实现2.4寸LCD屏图像回显；
       2. 供电方式：M4-主板供电均来源于HSIC8001主板；
       3. 通信接口：HSIC8001与M4主板通信采用4线【SPI-UART-I2C】兼容模式,；

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| 功能清单 | | | |
| 模块 | 功能 | 功能描述 | 说明 |
| M4-主控 | 【选型】STM32F407ZET6 |  |  |
| SRAM | 【选型】IS62WV512ban16 |  |  |
| LCD屏 | 【选型】KD024B-3C-TP |  |  |
| Camera | 【选型】HSIC8001 |  |  |
| Flash | 【选型】W25Q128FV |  |  |
| EEPROM | 【选型】24C02 |  |  |
| SDIO |  |  |  |
| OLED |  |  |  |
| 语音 |  |  |  |
| IO功能扩展 | | | |
| LED指示灯 | 【数量】4单色 |  |  |
| 蜂鸣器 |  |  |  |
| KEY | 【数量】4个 |  |  |
| UART | 【通信对象】UART1---->HSIC8001  【通信对象】UART2---->调试 |  |  |
| SPI | 【通信对象】SPI1----> HSIC8001  【通信对象】SPI2----> |  |  |
| I2C | 【通信对象】I2C1----> HSIC8001  【通信对象】I2C2----> |  |  |
|  |  |  |  |
| HSIC8001 IO分配 | | | |
| SD0-SD3 |  |  | 切换 |
| GPIO3-GPIO7 |  |  |  |
| IRIS\_NRST |  |  |  |
| IRIS\_INT |  |  | M4 中断 |
| IRIS\_IDLE |  |  | M4 |
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| 信号/功能测试点需求 | | | |
| 功耗测试 |  |  |  |
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1. **接口附图**