# IC IIC控制协议

为方便移植，IIC主机采用GPIO模拟，速率在（1K~100K之间）从机地址为0x18（不带读写位）

M4核心板:

1. 注册

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+2+2 | 0x0101 | 0x80 | 0x0002 | 2 | 8bit |

1. 识别

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+1+2 | 0x0102 | 0x80 | 0x0000 | 0 | 8bit |

1. 删除单个模板

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+2+2 | 0x0103 | 0x80 | 0x0002 | 2 | 8bit |

1. 删除全部模板

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+1 | 0x0104 | 0x80 | 0x0000 | 0 | 8bit |

1. 导入模板

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+1001+2 | 0x0201 | 0x80 | 0x1001 | 1001 | 8bit |

1. 导出模板

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+2 | 0x0202 | 0x80 | 0x0000 | 0 | 8bit |

1. 导入图片

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+n+2 | 0x0301 | 0x80 | 0x1002 | n | 8bit |

1. 导出图片

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+2 | 0x0302 | 0x80 | 0x0000 | 0 | 8bit |

1. GPIO输出

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+1+2 | 0x0401 | 0x80 | 0x0002 | 2 | 8bit |

1. GPIO输入

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+1+2 | 0x0402 | 0x80 | 0x0001 | 1 | 8bit |

IC端：

1. 回应注册

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+2 | 0x0101 | ret | 0x0000 | 0 | 8bit |

1. 回应识别

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+2 | 0x0102 | ret | 0x0000 | 0 | 8bit |

1. 回应删除单个模板

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+2 | 0x0103 | ret | 0x0000 | 0 | 8bit |

1. 回应删除单个模板

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+2 | 0x0104 | ret | 0x0000 | 0 | 8bit |

1. 回应导入模板

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+2 | 0x0201 | 0x00 | 0x0000 | 0 | 8bit |

1. 回应导出模板

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+1001+2 | 0x0202 | 0x00 | 0x1001 | n | 8bit |

1. 回应导入图片

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+2 | 0x0301 | 0x00 | 0x0000 | 0 | 8bit |

1. 回应导出图片

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+n+2 | 0x0302 | 0x00 | 0x1001 | n | 8bit |

1. 回应GPIO输出

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+0+2 | 0x0401 | 0x00 | 0x0000 | 0 | 8bit |

1. 回应GPIO输入

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 帧头 | 帧长 | 命令类型 | Type/Ack | 数据长度 | 数据 | CRC8校验 |
| 0xE00E | 8+1+2 | 0x0402 | 0x00 | 0x0001 | 1 | 8bit |