

















| Interface                 | Signal  | Pin      |
|---------------------------|---|----------|
| EMAC                      | EMAC_MDC_out EMAC_MDI_in EMAC_MDO_out EMAC_CRS_out EMAC_COL_out   | Any GPIO |
| I2C                       | I2CEXTO_SCL_in I2CEXTO_SDA_in I2CEXT1_SCL_in I2CEXT1_SDA_in I2CEXT0_SCL_out I2CEXT0_SDA_out I2CEXT1_SCL_out I2CEXT1_SCL_out   | Any GPIO |
| General<br>Purpose<br>SPI | HSPIQ_in/_out HSPID_In/_out HSPID_In/_out HSPICSO_in/_out HSPLCSO_in/_out HSPLCS2_out VSPIQ_in/_out VSPID_in/_out VSPICLK_in/_out VSPICLK_in/_out VSPLCS0_in/_out VSPLCS2_out | Any GPIO |

|              |           | Voltage of Intern   | al LDO(VDD_SDIO)                         |  |   |  |
|--------------|-----------|---------------------|--|--|---|--|
| Pin          | Default   | 3.3V                | 1.8V                                     |  | Destatore Disc                          |  |
| GPI012/MTDI  | Pull-Down | 0                   | 1  | Dt-t                                     |   |  |
|              |           | Bootin              | g Mode                                   |  | pping Pins                              |  |
| Pin          | Default   | SPI Flash Boot      | Download Boot                            | Set                                      | tings                                   |  |
| GPI00        | Pull-Up   | 1                   | 0  |  |   |  |
| GPI02        | Pull-Down | Don't-care          | 0  |  |   |  |
|              |           | Debugging Log on U  | IOTXD During Booting                     |  |   |  |
| Pin          | Default   | UOTXD Toggling      | UOTXD Silent                             |  |   |  |
| GPI015/MTD0  | Pull-Up   | 1                   | 0  |  |   |  |
|              |           | Timing of           | SDIO Slave                               |  |   |  |
| Pin          | Default   | Falling-edge:Output | Falling—edge:Input<br>Rising—edge:Output | Rising—edge:Input<br>Falling—edge:Output | Rising-edge:Input<br>Rising-edge:Output |  |
| GPI015/MTD0  | Pull-Up   | 0                   | 0  | 1  | 1                                       |  |
| GPI05\PHY_PW | RPull-Up  | 0                   | 1  | 0  | 1                                       |  |

| Fiducials |          |          |          |  |
|-----------|----------|----------|----------|--|
| FID1      | FID2     | FID3     | FID4     |  |
| Fiducial  | Fiducial | Fiducial | Fiducial |  |

| Internal Bootstra | pping Resistors |
|-------------------|-----------------|
| MTDI/GPI012:      | Pull-Down       |
| GPI00:            | Pull-Up         |
| GPI02:            | Pull-Down       |
| GP104:            | Pull-Down       |
| MTDO/GPI015:      | Pull-Up         |
| GPI05\PHY         | _PWRPull-Up     |

| https://www.olir              | nex.com                                      |          |  |  |  |
|-------------------------------|--|----------|--|--|--|
| OLIMEX LTD.                   |  |          |  |  |  |
| Sheet: /                      |  |          |  |  |  |
| File: ESP32-GATEWAY_Rev_H.sch |  |          |  |  |  |
| Title: ESP32-GATEWAY          |  |          |  |  |  |
| Size: A2                      | Date: 2024-05-14                             | Rev: H   |  |  |  |
| KiCad E.D.A. kid              | cad 5.1.0-rc2-unknown-036be7d80ubuntu16.04.1 | ld: 1/1  |  |  |  |
| 10                            | 11   | <u> </u> |  |  |  |